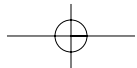
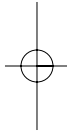
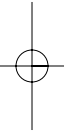
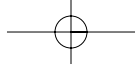


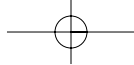
Review of Existing Private Sewers and Drains in England and Wales

Regulatory Impact Assessment

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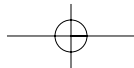
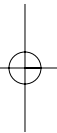
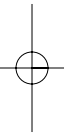
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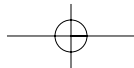
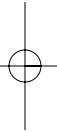
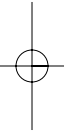
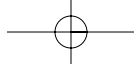




Review of Existing Private Sewers and Drains in England and Wales

Regulatory Impact Assessment





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Executive Summary

1. The Government published a response in October 2004 to the 2003 consultation paper, *Review of Existing Private Sewers and Drains in England and Wales*. The response acknowledged the high level of support for transferring existing private sewers into the ownership of the ten water and sewerage companies (WaSCs) and undertook to look at this option in more detail (paragraph 15).
2. Since then, work with stakeholders has continued, covering key areas such as how to implement a transfer, the views and expectations customers might have and estimating the costs of transfer to WaSCs together with the consequent bill increases to annual sewerage bills. (paragraphs 55 – 65).
3. Two options presented in the 2003 consultation have been brought forward to this Regulatory Impact Assessment (RIA). The options have been amended in light of the consultation responses and further work. The first option is transferring private sewers and lateral drains to WaSCs and the second option is an alternative of providing guidance on private sewers to explain responsibilities and possible ways of mitigating the risks associated with ownership. Both options are measured against a baseline option of 'do nothing' (paragraphs 72 – 74).
4. Transfer of private sewers and lateral drains could be implemented in a number of ways and options will be consulted on in the event of a decision to transfer. In this RIA the costs and benefits of an automatic overnight transfer have been considered, since this method of implementation offers the clearest, most comprehensive solution whose costs could be covered by a single increase in customer bills and would incur the lowest administration costs of the possible implementation options (paragraph 111).
5. Transfer would essentially redistribute risk and costs from private sewer owners to WaSCs, but there would also be incremental costs and benefits. Calculating the costs of transfer to WaSCs has been a challenging task and some uncertainty in associated costs still remains. Consequent sewerage bill increases are estimated to range between £3 and £11 per year (paragraphs 118 – 120).
6. In return, WaSCs would become responsible for sewers and lateral drains draining to a public sewer. There would be simplification and clarity of responsibility. Private sewer owners would no longer carry the risks and burdens of ownership. Private sewer owners will benefit to the greater extent, but by virtue of including laterals in transfer nearly all customers paying a sewerage bill will benefit from a removal of risk (paragraphs 123 – 126 and 133).
7. Transfer would help achieve a more sustainable, integrated sewer network able to operate more efficiently at a time when climate change and future housing growth will present new demands. Under transfer, an estimated 55 per cent of private drainage would come under the control of the WaSCs, allowing them to strategically manage all assets draining to the public network. This would bring various improvements including the prioritisation of network problems causing environmental hazards like flooding and management of data recording (paragraph 132).
8. Guidance to private sewer owners would have minimal costs given that the required information has been accumulated during the course of the Review and would only need disseminating. Benefits though would be proportionate. Although private sewer owners may become aware of their responsibilities and the options available to them to mitigate the risks of ownership – such as insurance cover – there would be no change to ownership arrangements and

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the related problems would still fall to owners to resolve and pay for. Guidance would not help achieve more integrated planning and operation of the network (paragraphs 135–137).

9. Based on responses to the 2003 consultation and on the evidence gathered subsequently, it is recommended that existing private sewers and lateral drains that drain to a public sewer are transferred into the ownership of the ten WaSCs in England and Wales, but that a caveat on cost estimates is noted. It is also recommended that options for implementing transfer and preventing the proliferation of new private sewers are consulted on (paragraphs 232–234).

10. The extent and condition of private sewers and laterals are uncertain and prohibitively expensive to discover (mapping alone would cost an estimated £118 million; see paragraph 82). Therefore, Ofwat's estimates of costs and bill impacts have necessarily been based on assumptions and must be understood in this context. The estimates are derived from best available information; the methodology used to produce them and their underlying assumptions are explained in a Technical Annex that is included at the end of this RIA.

Chapter 1 – Purpose and intended effect

(i) Objective

1. To recommend whether transferring ownership to Water and Sewerage Companies (WaSCs) is the appropriate solution to the problems caused by existing private sewers and drains in England and Wales.¹ Note that, unless otherwise stated, references to 'drains' in this paper refer to lateral drains – that part of the pipe that runs from the property boundary to connect to a sewer.
2. The timescale for transferring ownership will depend on how a transfer is implemented. Details of implementation options recommended for further public consultation are given at **Annex A**.

(ii) Background

3. Public sewers² are the responsibility of WaSCs, public limited companies³ which came into existence following the privatisation of the water industry in 1989. There are two types of sewer and drain: foul and surface water. The proposals and associated data cover both types.
4. All other sewers that drain to a public sewer remain 'private sewers' and are the shared responsibility of the owner(s) of the properties they serve. Usually only a small extent of the total length of a private sewer will actually lie in a property owner's own curtilage.
5. Drains that lie **outside** the curtilage of a property and connect either to a private sewer that drains to a public sewer, or directly to a public sewer, are known as 'lateral drains' (laterals). These assets are the responsibility of the individual property owner they serve. Laterals may lie under private or public land including highways.
6. Drains that lie **within** the curtilage of a property are also the responsibility of the property owner.⁴ They fall outside the scope of this review and there are no proposals to change an owner's responsibility for them (see paragraph 16).
7. The diagram at **Annex B** illustrates typical arrangements for private sewers and laterals draining to public sewers and the pie chart in Figure 1 shows the estimated split in the categories:

¹ Defra launched a public consultation in 2003 to review existing private sewers and drains in England and Wales. It sought views on the current ownership arrangements, related problems and possible solutions. In its 2004 Response Paper, the Government undertook to look into the option to transfer existing private sewers and drains to WaSCs. The Government's Response paper can be viewed at: <http://www.defra.gov.uk/corporate/consult/sewers/response.pdf>

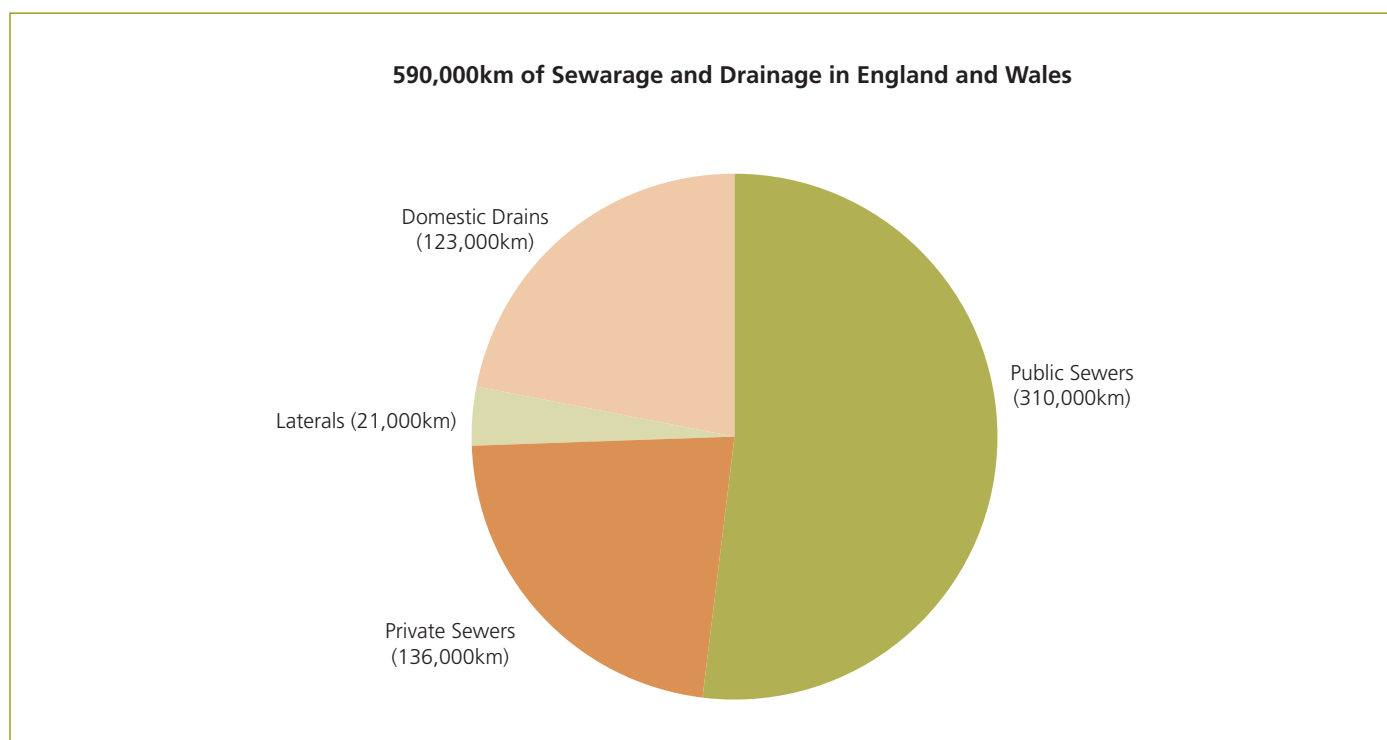
² The 1936 Public Health Act brought in the term 'public sewers' and applied it to all sewers vested in local authorities on 1 October 1937. The definition of 'sewer' was contained in section 4 of the 1875 Public Health Act. Sewers constructed after that date by a local authority vested in that local authority automatically unless they were laid to drain the authority's own land, e.g. a housing estate, when they became public sewers only if the authority adopted them. Sewers constructed after 1 October 1937 by someone other than a local authority could be adopted by the local authority, but no mandatory provision was ever made. The 1937 definition does not apply to inner London where local arrangements may apply. See also paragraph 6.

³ Dwr Cymru is an exception; it is owned by Glas Cymru Ltd.

⁴ Estimated by Ofwat to total 123,000km.

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Figure 1: Estimated breakdown of ownership of sewerage assets in England and Wales by length (km). Sources: Ofwat June Returns 2006, UKWIR RG07 Report



8. Currently there is no framework to guide owners in their responsibilities for private sewers and laterals. There is no guidance or process for owners to follow to help resolve problems that will involve maintenance or repair to their assets requiring a contribution to costs from multiple owners in the case of private sewers.

9. Private sewer owners may approach a WaSC to take over ownership of their private sewer. There are two mechanisms by which private sewer owners can potentially have their sewers adopted by WaSCs. For **new** sewers, owners-to-be or the developer responsible for their construction may seek an adoption agreement under section 104 of the Water Industry Act 1991. Minimum criteria for construction are set out in the current version of the water industry document Sewers for Adoption.⁵ However, within these criteria different WaSCs may impose their own separate requirements.

10. Owners of **existing** private sewers can apply to their WaSC to have their asset adopted under section 102 of the Water Industry Act 1991. Adoption is at the discretion of the WaSC, which can require applicants to bring their sewer up to the WaSC's adoptable standard. Sewers for Adoption does not apply to existing sewers and WaSCs make individual assessments. An 'adoptable standard' would usually satisfy criteria covering such things as construction materials, condition, capacity and the location and routing of infrastructure to serve the area or a region as a whole. A WaSC is unlikely to adopt a private sewer with existing problems unless the sewer is deemed to have strategic importance to the network (a low probability) or the owner brings the sewer up to an adoptable standard first.

⁵ Sewers for Adoption is a guide produced jointly by Water UK and WRc plc (Water Research Centre) designed to assist developers in the design and construction of new sewers to a standard suitable for adoption by WaSCs under Section 104 of the Water Industry Act 1991.

Chapter 1 – Purpose and intended effect

11. A previous review of existing sewerage was carried out in 1986 by the Department of the Environment and was concerned principally with modernising water and sewerage laws in preparation for privatisation of the water industry. A decision was taken not to transfer the responsibilities for private sewers to WaSCs for three main reasons: uncertainties over costs, the fact that private sewers were the responsibility of their owners in the same way as other property maintenance obligations and that existing legislation enabled adoption.

12. During the 1990s however the Department of the Environment, Transport and the Regions and the Welsh Office received increasing amounts of correspondence about sewerage problems, mostly related to difficulties with private sewers. Ministers received delegations on behalf of private sewer owners who were experiencing difficulties in getting their existing private sewers adopted by WaSCs, mainly because they were unable to pay the significant costs of remedial work necessary to bring their systems up to an adoptable standard.

13. The Government⁶ therefore agreed to undertake a further review of private sewers and drains in England and Wales and consultants, Atkins, were commissioned in 2001 to carry out its initial stages.

14. The review has comprised two-stages. The first stage, undertaken by Defra, sought to prevent new private sewers being built by default. A voluntary protocol for the construction of new sewers was introduced, so that all new sewers might be built to a standard that would not preclude their adoption by WaSCs. The second stage looked at existing private sewers. A public consultation, Review of Existing Private Sewers in England and Wales, was launched in 2003 and sought views on a number of possible solutions, including a transfer of private sewers to WaSCs.

15. The Government published its response to the consultation in October 2004, summarising the views of respondents and setting out its own views. The Government acknowledged the high level of support for a transfer of existing private sewers to WaSCs and undertook to investigate this option in greater detail. The Government concluded that it seemed sensible to include lateral drains in the scope of transfer, albeit that not all the problems associated with private sewers apply to lateral drains (see paragraph 51).

16. There are no proposals to transfer drains within the property boundary (curtilage) because responsibility for these assets is generally known and accepted by owners and problems are usually minor. Similarly, owners of entirely private treatment facilities tend to be aware of their responsibilities and are more likely to have arrangements in place to address problems, should they occur. The Government noted in its Response Paper the general preference of respondents to exclude private treatment facilities from a potential transfer. The diagram at **Annex C** highlights which assets on the network are recommended for transfer.

(iii) Rationale for Government intervention

17. There is no current framework to help deal with the main problems that ownership of private sewers and laterals may bring. The 1936 and 1961 Public Health Acts and the 1984 Building Act however vest powers in local authorities to require that owners of a sewer or lateral causing an environmental or amenity problem must rectify the situation (see paragraph 25). The only other relevant legislation allows WaSCs to adopt private sewers and new laterals⁷ at their discretion (paragraphs 9–10).

⁶ Unless otherwise stated all references in this paper to 'the Government' mean Central Government and the Welsh Assembly Government.

⁷ The Water Act 2003 includes legislation to allow WaSCs to adopt new lateral drains. WaSCs may be willing to adopt existing laterals (built before 2003) if they have been built to adoptable standards, but owners may be required to pay for their asset to be brought up to these standards.

Review of Existing Private Sewers and Drains in England and Wales

18. The current review of existing private sewers and drains in England and Wales has confirmed a number of perceived equity, social, administrative, financial and environmental issues associated with the current arrangements for private sewers. These fall broadly into two categories: difficulties for private sewer owners and inefficient and poorly integrated management of the sewerage system as a whole.

Problems for private sewer owners

19. Charges for sewerage services must be paid as part of the water and sewerage bill by everyone whose property connects to the public sewerage system. For customers served entirely by the public network, when a problem occurs the relevant WaSC carries out remedial work as appropriate. Customers served by a private sewer up to the point it connects with a public sewer are in a different position: they pay the same annual charge but it does not cover maintenance or repair for this 'private' section of pipe. Instead they bear the responsibility and risk of meeting extra (possibly significant and unexpected) costs to maintain the overall sewerage facility their property receives. Atkins estimated that 39 per cent of the properties currently paying sewerage charges are served by private sewers. Private sewers may, and lateral drains will, run outside the boundaries of the properties they serve; Ofwat estimates that a total of 157,000km of private pipework lies outside the property curtilage and remains the responsibility of the property owners.

20. The risk that private sewer owners might incur extra costs relating to their section of pipework is compounded by a comparatively high blockage rate. UK Water Industry Research (UKWIR) and Ofwat estimate that there are around 280,000km of private sewers, lateral drains and drains in England and Wales (see Technical Annex). Information gathered by Defra and based on data from drain service companies, estimates that there are 2.2 million blockages per year on the private network at an estimated rate of 9 blockages per km of private sewer. A useful comparison with the public system can be derived from the estimate that 82 per cent of blockages on the public network occur on former Section 24 of the Public Health Act 1936 sewers. These are generally small diameter sewers and comparable to private sewer pipes.⁸ The best estimate for the rate of blockage on an Ofwat-estimated 52,000km of former section 24 sewers is 2.8 per km of pipe.

21. Correspondence from Members of Parliament, Assembly Members, members of the public, residents' groups and housing associations suggests that there is a general lack of awareness among private sewer owners that they are responsible, most usually jointly with others, for these assets. This causes dissatisfaction and a sense of unfairness. For example, a property purchase search currently only reveals whether a property drains (eventually) to a public sewer; it does not disclose information about ownership of sewers and laterals immediately serving a property.⁹

22. Defra and the Welsh Assembly Government commissioned a customer survey in May 2005 which sought customers' potential views on transfer.¹⁰ A majority of participants in the customer survey indicated that they were not well informed of their responsibilities. The survey confirmed a lack of awareness about private sewers; most participants assumed that their WaSC or local authority was responsible for their sewer. On learning of current arrangements, the majority of participants described them as 'unfair, inconsistent and untenable.'

23. When a pipework problem arises it can be difficult to ascertain who exactly is responsible for the repair and maintenance of a private sewer as there are no comprehensive and reliable records of where these assets are or who is served by them. Private sewers by definition serve more than one

⁸ Dealing With Sewer Blockages, WRc, Ref: PT 1082/02775-0, December 1995.

⁹ This situation is likely to change in the future with the arrival of the Home Information Pack. See paragraph 42.

¹⁰ Details of the customer survey are given in the Consultation section of this RIA, paragraphs 56–62.

Chapter 1 – Purpose and intended effect

property and are usually jointly owned by the owners of the properties they serve. Some owners are unwilling to accept their responsibilities and there can be difficulties in requiring them to pay for the cost of repairs, or contribute to costs for shared private sewers. Neighbours may refuse to pay for a problem that they do not consider to be theirs (e.g. flooding may occur on a shared network because of a blockage but does not directly affect some of the connected properties). The diagram at **Annex D** highlights this scenario.

24. In other cases private sewer owners may simply not be able to afford the costs of repairs or maintenance to private sewers and drains, since these can be high. Emergency blockage clearance, for example, are estimated from industry sources to be in the region of £100–£280¹¹ and, as identified above, are often unexpected. Defra and the WAG receive correspondence on a wide range of issues relating to problems caused by private sewers, including the high cost of repairs. One letter from a residents' association in December 2004 highlighted costs of £10,000 for repairs to a stretch of private sewer and the subsequent difficulty in getting contributions from 57 owning properties to spread the costs.

25. The only current mechanisms for ensuring repairs are made to faulty private sewers or laterals are within local authorities' powers. Local authorities, typically Environmental Health Officers (EHOs), can serve notice on a property in cases where a private sewer or lateral is causing an environmental or amenity problem, requiring the owners to act. If owners cannot or will not resolve the problem, local authorities can undertake the repairs and either bear the costs or attempt to recover them from the owners concerned.¹² Although a solution, this is a last resort for local authorities.

26. Local authorities provided information on dealing with problems associated with private sewers, as part of Atkins' review. Local authorities' annual costs extrapolated from this information were estimated to be £125 million.

27. Atkins estimated the total annual costs for the maintenance and repair of private sewers and drains at between £64m and £160m.¹³ A full explanation of Atkins' estimates is given in the Technical Annex.

28. Although some private sewer owners may be able to claim for the cost of repairs to their assets on an insurance policy, insurers usually only provide cover for accidental damage and not wear and tear. Insurance is covered in more detail in paragraphs 91–96.

29. Private sewer owners can of course apply to their WaSC to have their sewer adopted (see paragraphs 9 and 10). However, adoption is at the WaSC's discretion and in cases where the sewer is judged not to be up to the WaSC's adoptable standard, the owner will most likely have to first rectify deficiencies at their own expense. Some private sewers may have been constructed from sub-standard materials or lie on a gradient too shallow for effective drainage, making re-laying the only option. The costs involved in such a process can be prohibitively high.

¹¹ Price range is based on standard emergency drain clearance. Industry prices vary according to factors such as date, time and location of callout.

¹² Although local authorities can require private sewer owners to perform repairs to problematic sewers under sections 59 and 99 of the Building Act 1984, the owners may default. In this event, local authorities have the power to register a charge on a property, recoverable on sale. If problems to private sewers or laterals can be resolved at a cost not exceeding £250, local authorities may perform or arrange repairs under section 17(1) of the Public Health Act 1961.

¹³ Note that this range includes the estimated £125m of costs to local authorities.

Review of Existing Private Sewers and Drains in England and Wales

30. When private sewer owners do accept their responsibilities and where action is needed to maintain or repair part of a private sewer system, few owners have the technical capability or experience to effectively deal with the problem or procure cost-effective remedial work. This problem is exacerbated by laterals that lie under public land or highways because work may involve digging up the road; UKWIR and Ofwat estimate that 13,500km of lateral drains lie under public highways in England and Wales.¹⁴ In some extremes private sewers are recorded to lie under railway lines.

Problems of network management and integrated drainage

31. The Foresight Future Flooding Report¹⁵ considers urban flood risk to be a problem that could worsen over the period of the report – from 2030 to 2100 – with the number of properties potentially at risk rising from below 100,000 to almost 400,000 and damages rising to as much as £15 billion, depending on the scenario. The report also noted that there is considerable uncertainty in this area, but pointed out that if climate change impacts are significant, urban drainage systems, which include highway drains, watercourses, surface water and foul sewers, would reach capacity more frequently.

32. The Foresight report found that there is currently no consistent mechanism for measuring asset performance as it relates to sewer flooding. The report also noted that in areas where sewers interconnect with a river or coastal system, their capacity might be compromised due to increased river depth or rising coastal waters reaching sewer outlets. The existence of private sewers further complicates monitoring these sorts of problems because they are a considerable obstacle to more integrated management of the network. Their ownership is widespread without being clearly recorded and WaSCs do not have control over a significant part of the network. Problems such as infiltration – where water enters pipes through the ground – and insufficient capacity can occur on private sewers which in turn affect the public network. This can be a hindrance to WaSCs in their aim to minimise inflows of surface water and infiltration of groundwater entering their public sewer networks, and forces them to deal with the consequences of these additional flows, rather than being able to tackle the causes.

33. Currently private sewers are not monitored for flooding because they are not the responsibility of WaSCs (at any rate their location is often unknown) and private sewer owners are not eligible for GSS payments¹⁶ where flooding has occurred on their private sewer or lateral drain.

34. Atkins' review of private sewers and drains found that local authorities received reports of flooding from private sewers affecting approximately 108,000 properties per year, although other sources indicated that the total number of incidents of external flooding may be as high as 282,000.¹⁷ A table showing problem types recorded by local authorities is attached at **Annex E**.

¹⁴ There are also lengths of private sewer under highways due to failed adoption agreements, for example, although these cannot be quantified.

¹⁵ The Foresight Future Flooding report is the most wide-ranging analysis of flood risk in the UK. It was released on 22 April 2004 by the Department of Trade and Industry (DTI).

¹⁶ The Government sets guaranteed standards of service that water and sewerage customers are entitled to receive from their WaSC. The guaranteed standards scheme (GSS) sets out the standards and the levels of GSS payment companies can make and is monitored by Ofwat. WaSCs make GSS payments when their level of service drops below certain standards for services ranging from making and keeping appointments to dealing with sewer flooding.

¹⁷ Review of Existing Private Sewers and Drains in England and Wales, Analysis of Consultation Responses, Penultimate Report (Part 1), Atkins, January 2004.

Chapter 1 – Purpose and intended effect

35. Responses to the Defra consultation *Making space for water*¹⁸ noted that a number of different organisations are responsible for various parts of the sewerage and drainage network; for example, the Highways Agency, WaSCs, the Environment Agency, local authorities and internal drainage boards. The majority of responses suggested that this arrangement is confusing and has resulted in a lack of integration in tackling problems.

36. An initiative under *Making space for water* is currently looking at a range of pilot studies as part of Defra's work on Integrated Urban Drainage (IUD). Although the pilots are primarily driven by flooding issues, some schemes will include private sewer issues.

Will the current situation be resolved over time?

37. In the absence of a mechanism to tackle the existing problems, private sewers and laterals will continue to need maintenance and repair and their owners, typically unaware of their responsibilities, will remain obliged to organise the work and bear the costs, whether alone or jointly with others. They will continue to pay sewerage charges that do not contribute to the maintenance or repair of the private section of the network that serves their property. Without an existing mechanism to prevent the proliferation of private sewers and without transfer, future sewers will increase the length of unadopted pipework in the system.

38. It is difficult to predict whether the frequency of problems associated with private sewers and drains will increase, decrease or remain the same over time. Private sewers and drains are finite assets; as they come to the end of their life the need for repair may increase, in turn increasing the risk to public health and the environment as problems of establishing ownership and sharing responsibilities continue to cause delay to the resolution of structural problems. As private sewers deteriorate over time and more problems occur, it is likely that complaints about the current arrangements will increase.

39. In particular, problems on private sewers constructed from pitch-fibre pipes – used extensively in the 1960s for small-bore pipes – are likely to increase in the short-term (20–30 years) due to their design life of around 50 years. However, in the longer-term, with the replacement of pitch-fibre pipes with superior materials as required, these problems will eventually be eradicated. Atkins' research discovered that up to 50,000 properties per year suffer problems relating to pitch-fibre pipes. A rough, top-end estimate based on data from the Pitch Fibre Pipe Association suggests that there are currently 78,000km of pitch-fibre pipes.¹⁹

40. Concerns have been raised that the introduction of water-saving devices in the home, such as low-flush lavatories, may lead to an increase in the frequency of blockages in the sewer system. Research on the 'Implications for Site Drainage Design of Low Water Usage in Domestic Buildings', undertaken for the Department of Trade and Industry by HR Wallingford in October 2003, concluded that current drainage designs were satisfactory for such low water usage applications, but that it was important to stress the role of maintenance.

41. It is not possible to quantify an increase in problems with private sewers, as it may be for public sewers. The condition of *public* sewers in England and Wales is graded by WaSCs and is based on the presence and level of defects on assets defined as 'critical' sewers.²⁰ Where known, external

¹⁸ Defra held a three month consultation on a new cross-Government strategy for flood and coastal erosion risk management in England during Autumn 2004. More information on 'Making Space for Water' and the Government's first response to it is available at: <http://www.defra.gov.uk/environ/fcd/policy/strategy.htm>

¹⁹ Figures based on production stats (tons per annum) for 1952-1974. Not all of the pipes manufactured will be used on sewer infrastructure; e.g. pitch-fibre was also used for electricity ducting under highways.

²⁰ Sewers are classified depending on factors such as size, depth, material and location. 'Critical' is an operational term meaning that a sewer is important. According to Ofwat there are approximately 70,000km of critical sewers. The majority are the larger diameter pipes.

Review of Existing Private Sewers and Drains in England and Wales

conditions – namely the physical environment in which the pipework is situated – are applied to give a likelihood of failure and a risk grading is given to the asset. This type of analysis however cannot be applied to the private sewerage system because inspection of private sewers is reactive only and usually carried out by independent private drainage businesses called out by owners. There is no regulatory requirement or incentive for WaSCs to keep records of sewerage infrastructure not vested in them. Therefore, extrapolating data to produce forecasts of the likely levels of private sewer failures was not feasible.

42. One aspect of the current situation that may improve over time is the level of awareness when buying a property. The Home Information Pack (HIP), expected to become part of the house buying process in June 2007 will identify the ownership status of the sewers serving properties for sale, providing owners with information that they do not currently receive. This however will not help existing private sewer owners. It might also be the case that in examples where a private sewer is identified by a HIP, owners find, or at least perceive, that it will be more difficult to sell their property, thus causing dissatisfaction.

43. If nothing is done to improve the current situation private sewer owners will be affected the most since they have no simple or convenient recourse to alleviate their responsibilities. Different arrangements for private and public sewers will remain and the risk of private sewer owners incurring extra, often unexpected expense to alleviate problems on their sewers and drains will persist. The risk of environmental hazards derived from faulty infrastructure will continue as will costs incurred by local authorities.

44. In summary, owners of private sewers and laterals in England and Wales are not assisted by a framework of guidance, no clear process exists to help them deal with the problems ownership can bring and many owners are currently unaware of their responsibilities. Existing legislation either enforces their responsibilities on them or provides for their responsibilities to be assumed by WaSCs, but at the company's discretion. The management of private sewers, an asset base of unknown extent and condition, but estimated by Atkins to serve 39 per cent of sewerage bill payers, is inefficient and owners perceive the burden they carry, or risk carrying, as unfair. Many participants in the customer survey who believed they were served by the **public system** also viewed current arrangements as unfair. If nothing is done to address this situation, private sewer owners will continue to incur, and risk incurring, costs to resolve problems they may be unaware fall to them to sort out and significant obstacles to integrated management of the sewerage network as a whole will remain.

Chapter 2 – Consultation to date

45. The Government published its Consultation Paper, *Review of Existing Private Sewers and Drains in England and Wales*, in July 2003. The paper sought views on five high-level strategic options for a workable and sustainable solution to the problems caused by existing private sewers and drains: <http://www.defra.gov.uk/corporate/consult/sewers/conpap.pdf>

46. The five options were:

- Transfer ownership of private sewers and laterals to WaSCs or local authorities
- Transfer management of private sewers to WaSCs or local authorities
- Transfer ownership of laterals under public land to WaSCs
- Introduce new legislation to make WaSCs or local authorities enforcers of standards for private drainage
- Introduce new legislation and guidance

47. Ninety-five per cent of respondents to the consultation stated that current arrangements for existing private sewers and drains are unsatisfactory and that changes are needed to address the problems associated with them.

48. A Government Response Paper was published in October 2004, which summarised responses to the 2003 consultation and set out the shared views of Central Government and the Welsh Assembly Government. <http://www.defra.gov.uk/corporate/consult/sewers/response.pdf>

49. Eighty-one per cent of respondents to the consultation favoured a change of ownership and, of those, ninety per cent thought that WaSCs should take over ownership. Most respondents felt that as specialist utility owners WaSCs have the required operational and managerial capabilities and resources to most effectively take ownership. The Government undertook to look into this option in more depth.

50. In the context of the original consultation document, the term 'private sewers' encompassed various parts of the sewerage network: sewers, lateral drains and private treatment systems, for example. The full scope of transfer is one of the questions recommended for further public consultation, but the transfer option in this RIA assumes the inclusion of all existing domestic private sewers that drain to public sewers, lateral drains that connect either directly or ultimately to public sewers and pumping stations that serve more than one property and pump directly or indirectly to a public sewer.

51. A high proportion of respondents to the 2003 consultation and participants in the customer survey (see paragraphs 58–65) thought that laterals should be included in a transfer and in its Response Paper Government concluded that it would seem sensible to include laterals in the scope of any transfer. It is acknowledged however that certain problems affecting private sewers do not apply to laterals. Lateral drains, by definition, serve single properties and therefore do not suffer from problems of joint ownership and responsibility, such as agreeing, apportioning and securing costs for any necessary repairs. Many householders are unaware that they own assets beyond their curtilage. However, the exclusion of laterals in any transfer would be a piecemeal approach and preclude

Review of Existing Private Sewers and Drains in England and Wales

integrated management of the sewer network as a whole. It would also probably cause confusion and consternation among owners as to why wholesale transfer had not taken place, especially given that laterals lie outside a property's boundary. See diagram at **Annex F**.

52. Ofwat and UKWIR estimate that there are 136,000km of private sewers and 21,000km of lateral drains in England and Wales. While the length of laterals appears small in comparison to private sewers, most properties are connected to a sewer by some form of lateral connection, to either a public or private sewer, and therefore will benefit from a transfer that includes laterals. Only properties served by former section 24 sewers that lie entirely within the property curtilage, or by laterals which connect to a private or public sewer within the curtilage would not derive any benefit from transfer of laterals. The former category is likely to be by far the smallest, but it is extremely difficult to quantify the percentage of properties that connect to sewers via lateral connections.

53. Completely private systems, which incorporate septic tanks, small treatment works and the private sewers that drain into them account for around ten per cent of the private sewers in England and Wales,²¹ the majority of which are in rural areas. The transfer of ownership of such systems could involve substantially greater practical issues than would be the case for private sewers that drain to public sewers.

54. The Government noted the general preference in the response paper to exclude private treatment systems from any transfer. Since the majority of private treatment facilities exist in rural areas the Government has considered the impact on rural communities before making a decision on the exclusion of these assets. Firstly, the owners of private treatment facilities are likely to be aware of their responsibilities and therefore more likely to deal with the problems accordingly. Secondly, owners of these systems do not pay sewerage charges. Thirdly, if owners wish to apply for connection to mains drainage they can do so under sections 98 or 101A of the Water Industry Act 1991 and, lastly, private sewer owners living in rural areas will be covered by transfer.

55. Defra chairs a Steering Group which has been examining the issue of private sewers. Steering Group members include the Welsh Assembly Government, Ofwat, Water UK, Consumer Council for Water (CCWater), Communities and Local Government (CLG, formerly ODPM), the Environment Agency, local authority representatives, an insurance industry representative and engineering consultants, Atkins.

56. Defra has also had informal discussions with representatives of the drain repair industry as part of the small firms impact test, details of which are included in the small firms impact test section of this RIA.

57. In January 2005 Defra invited key stakeholders to a seminar to explore sustainable options for the scope and form of any potential transfer to WaSCs. The information and views gathered during the day's discussions contributed significantly towards the recommended option in this RIA and implementation options proposed for further consultation. A summary of the seminar is attached at **Annex G**.

58. Defra and WAG also commissioned qualitative customer research to investigate customers' potential views on transfer to WaSCs. CCWater (then WaterVoice) provided valued assistance as a member of the commissioning and steering panel. The research was undertaken to address a

²¹ Quoted in Review of Existing Private Sewers and Drains in England and Wales, July 2003, p.4.

Chapter 2 – Consultation to date

perceived gap in responses to the original consultation, which mainly came from industry and local authorities. The research offered the chance for some customers to voice their opinions. The conclusions from the customer survey report are attached at **Annex H**.

59. A qualitative study based on focus groups was chosen because this method allowed for open discussion of a complex topic and provided the opportunity to gain an in-depth insight into the reasons behind customers' potential views.

60. In order to create the opportunity for a broad range of views to be heard, respondent selection for the focus groups was controlled to cover urban and rural locations, all socio-economic groups, bill payers and non-bill payers, age and gender as well as perceived private sewer owners and perceived non-owners. With only a few exceptions the views of participants revealed no differences based on these variables.

61. The findings of the survey offer an indication of how customers might react to a transfer if it went ahead; they do not offer statistical proof of customers' views and cannot be used to represent the views of the population at large. However, if similar views are expressed in different areas across the country in a qualitative setting, they can provide an indication of a consistent pattern of behaviour.

62. Participants in the customer research identified problems arising from the difficulty of identifying ownership, shared ownership itself and responsibility, and most described the current situation as 'unfair, inconsistent and untenable'. The majority of participants felt that existing private sewers should be transferred and that WaSCs should assume ownership, believing that local authorities were better suited to handling environmental health problems, providing information to customers on private sewers and overseeing planning issues and consents. This mirrored the majority view expressed in responses to the consultation.

63. There was clear support from customer research participants for any transfer to include lateral drains. This view was largely based on the removal of the risk of potentially high costs associated with their maintenance and repair. Participants also believed that transferring laterals would be consistent with their assumption that any pipework outside the boundary of their property was not their responsibility.

64. The majority of participants expressed the opinion that an increase in bills for all customers – based on the indicative regional figures provided – would be acceptable, fair and less than they would have expected.²²

65. A general view was also expressed by the participants that any measures to improve guidance would not on their own be sufficient to tackle the problems presented by existing arrangements.

66. Following formal and informal consultation certain options from the 2003 Consultation paper have been discounted due to lack of support. Consultation option 2 – transfer management of private sewers to WaSCs or local authorities; option 3 – transfer laterals only to WaSCs; and option 4 – new legislation to make WaSCs or local authorities enforcers of standards for private drainage have not been carried forward to this RIA.

²² The full report of the customer survey can be found at: <http://www.defra.gov.uk/environment/water/industry/sewers/existing/pdf/research-report.pdf>

Review of Existing Private Sewers and Drains in England and Wales

67. Consultation option 2 – transfer management of private sewers to WaSCs or local authorities has been discounted because fifty-eight per cent of respondents to the 2003 consultation, including seventy-nine of the one hundred and thirty two responding local authorities and nine of the ten WaSCs, did not believe that the transfer of management was a viable option. The majority view was that it would not address ownership problems and therefore disputes over responsibilities.

68. Consultation option 3 – transfer laterals only to WaSCs also received low stakeholder support. Those respondents to the consultation in favour of a transfer were asked a supplementary question about the extent of assets to be adopted. Of the five options presented they ranked 'laterals only' fourth. The full list of options is at **Annex I**. The transfer of laterals *alone* does not provide a sufficiently comprehensive solution because it would not address the problems caused by private sewers.

69. This is not to say however that the transfer of laterals did not receive support. Eighty-two per cent of respondents to the original consultation, including one hundred and four of the one hundred and thirty one local authorities who expressed a view, and seven of the ten WaSCs, responded in favour of legislation to allow existing lateral drains to become the responsibility of WaSCs. Those respondents to the consultation in favour of transfer ranked the transfer of private sewers *and* laterals first out of the five possible options. Participants in the customer survey in every focus group appeared unanimous in stating that laterals should not be the responsibility of the householder because they had no control over the land above them (see paragraphs 51 and 63).

70. The Water Industry Act 1991, as amended by the Water Act 2003, includes legislation that allows for the adoption of all laterals should a transfer be decided. It is recommended therefore that these assets should be included in any transfer of ownership of private sewers.

71. Consultation option 4 – new legislation to make WaSCs or local authorities enforcers of standards for private drainage has been discounted because it will fail to address the more significant problems of ownership and responsibility currently facing private owners, whilst imposing potentially demanding burdens on WaSCs and local authorities, especially if they become involved in legal disputes. Most local authorities no longer have drainage departments to take on such a role and WaSCs have no significant experience of enforcing legislation.

72. Therefore, only options 1 and 5 from the 2003 consultation have been brought forward to this RIA, and both have been amended in the light of consultation responses. Option 1 has been refined from a transfer to WaSCs or local authorities to a **transfer to WaSCs only**. Option 5 has been refined from improving legislation and guidance to providing **guidance only**.

73. The revision to Option 1 has been made because of the high level of support for transfer to WaSCs in responses to the 2003 consultation, as outlined in paragraph 49, and from participants in the customer survey.

74. The revision to Option 5 has been made because providing guidance, as opposed to bringing legislative changes, offers a possible non-regulatory option.

Chapter 3 – Options

75. The previous chapter explained why certain options from the 2003 consultation have not been brought forward to this section. The remaining two options (as amended) are presented here measured against the baseline option of 'Do nothing'.

Do nothing

76. The current ownership and adoption arrangements for existing private sewers and laterals, their management and the legislation governing them would remain unaltered. Problems currently associated with private sewers and laterals will continue in the absence of a mechanism to address them and some problems, such as structural damage to private sewers leading to potential flooding and pollution, may get worse over time. If problems do worsen, dissatisfaction with existing arrangements may increase as more owners become aware of their responsibilities.

77. A decision to maintain current arrangements for private sewers and laterals as a review outcome would require no new implementation or delivery mechanisms other than an announcement confirming the review's conclusion.

78. Such an announcement might however raise the profile of private sewers, in the media for example, and lead to more people becoming aware of their responsibilities. This too may increase dissatisfaction with the current situation, presumably among private sewer owners in the main.

Option 1 – Transfer ownership of private sewers and lateral drains to WaSCs

79. Ownership of all existing private sewers and laterals draining to a public sewer would be transferred to WaSCs. The maintenance and repair of these assets would become the responsibility of WaSCs, relieving private sewer owners at a stroke of their current obligations. The re-distributed costs associated with this work would be met from WaSCs' operational and capital maintenance programmes which are ultimately funded through sewerage bills levied on the generality of a WaSC's customer base.

80. Placing the costs of transfer and subsequent maintenance and repair on the generality of customers in this way, as opposed to it being met only by private sewer owners paying more, reflects the fact that the majority of customers would benefit to some degree because they are responsible for at least a length of lateral drain. It is also consistent with general charging policy, whereby the costs of upkeep of the sewerage system in general is spread across the whole customer base. Few customers will not benefit from the transfer of laterals and identifying all those whose drain connects to a private sewer before connecting to the public system is not practicable. The location of many private sewers is unknown and their ownership is not fixed – those currently served by the public sewerage system could become private sewer owners on moving house.

81. The extent and condition of private sewers and laterals are largely unknown. This makes estimating the costs of transfer and consequent bill impacts impossible to perform with any certainty. WaSCs cannot provide Ofwat with full and accurate data from which to calculate levels of funding in its future price determinations, meaning that calculations made by Ofwat to determine the financial cost of transfer – a cost passed on to the generality of customers in their annual sewerage bills – are

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necessarily based on assumptions. This uncertainty will need to be factored into Ofwat's price determinations. Price limits will be set in 2009 for five years. In order to take account of the costs resulting from any transfer of private sewers, WaSCs will need to set out their requirements, together with supporting evidence, as part of their business plan submissions to Ofwat. Prices will be reviewed again in 2014, by which time it is expected that additional information will become available, based on the experience following transfer.

82. Uncertainty surrounding the extent and condition of private sewers and laterals would only be resolved by undertaking a full internal survey and mapping exercise at prohibitively high cost. The unpublished 2002 UKWIR report, 'The Real Cost of Taking Over Private Sewers and Drains', estimated that a mapping exercise alone for private sewers on this scale would cost £118m.²³ This exercise would not investigate the condition of private sewers.

83. The level of uncertainty could instead be partly mitigated by implementation options that phase transfer over an extended period of time, allowing WaSCs to build a better knowledge of the extent and condition of assets and spread the impact of sewerage bill increases. Further consultation on the possible implementation options for transfer is recommended; the options are listed at **Annex A**. Pilot schemes have also been suggested by some stakeholders as a way of improving knowledge about the current extent and condition of private sewers; these will be discussed as part of the proposed consultation on implementing transfer.

84. A possible unintended consequence of transfer might be that some very small drain repair businesses may lose their current share in the market. If WaSCs become responsible for co-ordinating maintenance and repairs, they may use in-house teams or contractors to carry out work. This possibility is perceived by the smallest of drain repair businesses²⁴ and is discussed in the small firms impact test in Chapter 6.

Implementation and delivery plan – see chapter 9

85. There is a risk that some property owners might object to the transfer of their 'assets', preferring to control when and how they are maintained or repaired. However, if the reasons for transfer are properly communicated, the risk is perceived to be low. However, it is envisaged that an appeal mechanism against transfer would be included, giving owners the option of retaining control of their assets.

86. Announcing a future transfer of ownership may disincentivise some property developers in the interim from constructing sewers and laterals to the standard required by the 2002 voluntary Protocol for the Construction and Design of New Sewers²⁵ in the knowledge that they would be adopted in any event by WaSCs in the future. However, if the voluntary protocol was made mandatory (or an alternative build standard was developed and made mandatory), this potential problem could be avoided. The question of whether a mandatory build standard should be introduced is recommended for inclusion in the next stage of public consultation.

²³ Estimate derived by Ofwat from methodology used by UKWIR in 'The Real Cost of Taking Over Private Drains and Sewers'. This methodology assumes one node per 10m of drain and one node per 20m of private sewer, and uses unit costs per node. Properties served by lengths of pipe shorter than 10m for drains and 20m for private sewers will not register a node and therefore mapping costs may be underestimated.

²⁴ Defined as businesses with only a couple of employees.

²⁵ The Protocol sets out a build standard that does not preclude their (current) adoption by the WaSC.

Chapter 3 – Options

87. Private sewer owners whose assets are in need of repair may delay until those assets are transferred to WaSCs. This could cause environment and amenity problems. However, in such cases local authorities have the power to intervene (see paragraph 25).

Option 5 – Provide guidance

88. One of the options put forward in the consultation was change to legislation or guidance. This option has been refined to guidance only and constitutes a possible non-regulatory option. Ownership arrangements for existing private sewers and laterals would remain unaltered, but some improvements to the current situation may be brought about by providing guidance.

89. Guidance could be provided for private sewer owners about current arrangements, their responsibilities and the options open to them to mitigate the risks of ownership. This would be mainly provided by Defra and WAG.²⁶

90. 80 per cent of respondents to the consultation agreed that guidance should be provided to private sewer owners to explain clearly their responsibilities and those of other parties. This was reinforced by the majority of participants to the customer survey who believed that better guidance would address the current lack of awareness of their obligations among private sewer owners.

91. Guidance could also include advice on types of insurance cover, which could potentially mitigate some of the risk which currently falls on property owners. The insurance market offers a number of options providing varied degrees of cover for repairs to sewers and drains. Some cover is available through household insurance policies and other specific policies are offered to their customers by the WaSCs. However, it is not always clear precisely which assets are covered by the various policies and the success or otherwise of claims will come down to the circumstances of individual cases.

92. 88 percent of respondents to the consultation were in favour of insurers providing better explanations of what their policies covered. The view of the Association of British Insurers (ABI), however, was that current information was sufficient. 64 percent of respondents thought that insurers should offer greater coverage of private sewers and drains.

93. As noted above, all WaSCs offer some form of insurance cover for their customers, many of which are 'drainage policies' from one particular provider of insured home repair solutions and emergency services. This 'Drainage Cover' is available for 'drainage pipes' and includes those outside the property boundary – i.e. lateral drains. It also includes drains on private land to which owners have the 'legal right of access'. The policy does not however offer cover for private sewers.

94. Some home insurance policies can offer cover for pipes for which their owner is 'legally responsible', which could include private sewers, but the extent of cover varies from policy to policy. However, policies will generally only offer cover in the event of accidental damage, not wear and tear.

95. While insurance cover does, to some degree, offer a way to mitigate the risk of future problems on some sections of private pipework, and it is always possible to seek specific tailored insurance, owners of private sewers or laterals with existing problems may find that taking out specific cover for their assets is prohibitively expensive if there is a history of difficulties.

²⁶ In conjunction with CCWater. CCWater is currently drafting a guidance note to consumers in the form of a 'Your Questions Answered' leaflet.

Review of Existing Private Sewers and Drains in England and Wales

96. The potential impact of transfer on the insurance industry is covered in the Competition Assessment in Chapter 7 of this RIA.

97. Defra and WAG guidance could also make home buyers aware that information on the sewerage arrangements for prospective properties will be included in the Home Information Pack (HIP), expected to be introduced from June 2007. This would alert buyers to the existence of a private sewer or lateral if either asset served their prospective property, which would give them the chance to mitigate the risks if they wanted to do so, thus addressing one of the major problems with existing private sewers and drains – many owners' lack of awareness of their responsibilities. The HIP would not of course offer solutions to any of the problems that owners may face regardless of whether or not they are aware of their obligations, such as organising and paying for repairs and apportioning costs between shared owners.

98. Issuing guidance would be the most straightforward of the five options as there would be relatively few costs; it is likely that guidance would be issued by government and the WAG, based on information gathered over the course of the Review and would require only a small resource burden. However, the benefits would be also be relatively small. Responses to the consultation indicated that guidance may provide partial solutions, but the majority of problems of most concern to the public would remain, leaving a potential source of dissatisfaction for private sewer owners who dispute their ownership and/or responsibilities.

99. For these reasons, based on the evidence presented in the responses to the consultation and information gathered from subsequent work with stakeholders, it is very unlikely that improvements to guidance will be sufficient by themselves to address the problems created by private sewers and drains. However, improved guidance may help the public's awareness of private sewers and the surrounding issues and help local authorities in their role. Private sewer owners would still face difficulties though in resolving problems relating to their assets because ownership of private sewers or laterals would not change.

100. An unintended consequence of guidance might be that more private sewer owners become dissatisfied with current arrangements as they discover their responsibilities for the first time, thus adding to the numbers who believe that present arrangements are unfair, inconsistent and untenable.

Implementation and delivery plan

101. A news release on a decision not to transfer would be issued and notices posted on all relevant stakeholder websites: Defra, Welsh Assembly Government, CLG, Ofwat and CCWater. Information articles would be placed in the relevant trade press, the DirectGov website and a mail shot using the WaSCs' customer databases could be considered.

102. Defra and the Welsh Assembly Government would draft and issue guidance for water and sewerage customers explaining their possible responsibilities and the options open to them to mitigate the risks of ownership.

Chapter 4 – Costs and benefits

(i) Sectors and groups affected

103. Private sewer owners are a primary group affected by the policy options considered in this RIA. They comprise:

- Householders
- Businesses²⁷
- Local authorities (in their capacity as property owners)
- Housing Associations
- Other property owners (e.g. government, NGOs, institutions etc)

104. Other stakeholders and sectors affected are:

- WaSCs – who are responsible for public sewers
- Local authorities – currently have management obligations for private sewers
- Insurance companies – deal with claims associated with private sewers
- Drain repair businesses
- Regulators – e.g. Ofwat and the Environment Agency
- Consumer bodies – e.g. CCWater, Citizens Advice Bureau
- Government – policy decisions
- Existing sewerage bill payers on public sewers

105. Although there is no available information about the distribution of private sewers and laterals across racial groups, it is not anticipated that this policy will have any race equality impacts.

(ii) Analysis of costs and benefits

106. This section covers the economic costs and benefits of the option of transferring ownership of existing private sewers and drains to WaSCs and the option of providing guidance. The analysis covers financial, environmental and social costs and benefits. The 'Do nothing' option, describing current arrangements for private sewers, has been used as a baseline against which to assess other options and has been covered in the Rationale for Government intervention section of this RIA.

107. The majority of costs relating to the policy solutions presented in this RIA are policy costs as they are directly attributable to the policy goal. Comparatively, administrative costs of the options presented in this RIA are low. By 'administrative' we mean processes involved in enforcing and monitoring a policy change. For transfer, for example, the administration and monitoring capacity needed to set up these schemes is largely already in place and very little additional 'red tape' burden is envisaged. New administrative burdens brought about by any changes in the behaviour of a particular group resulting from new policy are addressed separately below, and the related costs are indicated, where possible.

²⁷ This RIA focuses on policy solutions for domestic private sewers and drains. Costs and bill impacts do not take account of business premises. Preliminary advice from Ofwat suggests that estimates would not differ significantly. Should transfer go ahead consideration will be given to including non-household premises in transfer due to the interconnected nature of the sewer system.

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Sources of information

108. As there is no co-ordinated body responsible for managing private sewers and drains, it is very difficult to establish reliable figures for the current annual costs associated with operating and maintaining these assets. In the absence of records covering the location and condition of private sewers it is not possible to give certain figures for the length of private sewers and drains, the costs associated with them or to quantify precisely many of the related problems.

109. In Defra and the Welsh Assembly Government's original consultation, data on private sewers and related costs were derived from Atkins' analysis. Since then, further work has been done on private sewers and drains by WRc for UK Water Industry Research (UKWIR), which produced revised estimates for the length of private sewers. The new estimates were based on the application of a different methodology to that used by Atkins that allowed for company-level estimates of assets and associated costs. Ofwat used this data to estimate costs and bill impacts for the various implementation methods for a transfer of private sewers and lateral drains. It is this data, as presented by Ofwat, that has been used to inform this RIA. A full explanation of the move from Atkins' to UKWIR's data together with Ofwat's modelling are provided in the Technical Annex.

110. Water UK has advised that some WaSCs are now undertaking work to estimate costs of transfer.

Option 1 – Transfer of ownership to WaSCs

111. A transfer could be implemented in a number of ways ranging from an automatic transfer, either from a set date or phased over a longer period of time, to a voluntary 'on application' system. It is recommended that a range of implementation options should be consulted on if a decision to transfer is taken (see **Annex A**). The costs of transfer and who incurs them will vary depending on which implementation option is chosen, but for the purposes of this RIA an automatic overnight transfer has been selected for analysis because it represents the most straightforward and comprehensive method for all involved, it delivers immediate benefits to all sewerage customers served by a private sewer and/or lateral and has received the strongest support from most stakeholders to date. It is also the option for which the whole cost may be covered by a single increase in customer bills and the lowest administration costs of transfer.

112. The costs and benefits of transfer are essentially a redistribution of existing costs and benefits between various sectors and groups, primarily from private sewer owners to WaSCs and their customers. However, there are also some incremental costs and benefits. A distinction between redistributed and incremental costs and benefits has been made in the analysis that follows, but it is not possible to always quantify the two different elements.

Costs

113. Transfer would redistribute the burden of responsibility and related costs for private sewers and laterals from current private sewer owners to WaSCs. Ofwat advises that the impacts on WaSCs will be reflected in an increase in their capital and operating expenditure. The estimated increases at a national level for an automatic overnight transfer from a set date are £1.4bn over twenty years²⁸ for capital expenditure and £23m for average annual operating expenditure.²⁹ These estimates account

²⁸ Capital costs will continue after 20 years, but it has been assumed by Ofwat that capital expenditure will drop off after this period (during which transferred assets will need to be brought up to a serviceable standard) to a level needed to simply maintain the assets.

²⁹ Operational costs continue in perpetuity.

Chapter 4 – Costs and benefits

for efficiency savings and have had HM Treasury's standard discount rate of 3.5 per cent applied. The figures, efficiency savings and discounting are explained in the Technical Annex. Please also see also paragraph 120.

114. These costs include the costs currently borne by private sewer owners (estimated by Atkins at £64m–£160m annually) but would also include increased costs for WaSCs that would be additional to the 'Do nothing' option. For example, it is intended that pumping stations that form part of the ancillary equipment of existing private sewers should be included in a transfer³⁰ and Ofwat has estimated that 5,000 such assets exist in England and Wales; these assets have been factored into Ofwat's estimated costs of transfer in the £1.4bn capital expenditure costs over 20 years. WaSCs may perform remedial work from their capital expenditure budgets to bring deficient pumping stations up to a serviceable standard, but these additional costs are extremely difficult to estimate.

115. Research by UKWIR indicated that private sewers were less likely to discharge into pumping stations than public sewerage. Subsequent research indicated that around 30,000 sewage pumping stations may exist which serve single properties/businesses. Although these single curtilage pumping stations have not been considered in estimating costs of transfer – being, as they are, outside the current scope of transfer – the question of their inclusion is recommended for consultation because of a technical issue with pressurised rising mains.

116. Water UK has reported that WaSCs foresee an increase in their own internal day-to-day administration costs following transfer, in addition to the increase in operational and capital costs. For example, an automatic overnight transfer would require an appeals procedure for owners who do not want their sewers or laterals transferred. This would most likely be determined by Ofwat but would require WaSCs involvement. Further administrative costs could include scheduling and dispatch functions, increased call volumes when transfer is communicated, and additional monitoring and reporting commitments on service levels and investment to Ofwat, covering newly transferred sewers separately from existing public sewers. These cost are included in the (capex/opex) figures presented in the Technical Annex.

117. The statutory functions of all ten WaSCs plus the 14 water only companies are ultimately funded by charges to customers generally. On transfer, WaSCs would therefore recover their increased costs via customers' annual water and sewerage bills by spreading increases over the generality of customers. Ofwat has estimated the bill impacts of this option.

Bill impacts

118. Ofwat produced an estimated range of annual sewerage bill increases of £3–£11 across the WaSC regions to cover the costs associated with transfer. This range applies to the most straightforward but comprehensive option – an automatic overnight transfer of existing private sewers and laterals. Ofwat's estimated bill impacts and an explanation of how they were arrived at are attached in the Technical Annex.

³⁰ Transfer of pumping stations that serve single dwellings or commercial properties is recommended as a question for further public consultation.

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119. As previously identified, there is uncertainty surrounding the extent and condition of existing private sewers and drains, making it impossible to ascertain costs and therefore estimate bill impacts with known margins of error. Water UK has advised that since publication of the UKWIR report (from which Ofwat drew data to perform its estimates on costs and bill impacts) individual WaSCs have continued to refine their understanding of these issues and have started to collect data with the intention of continually improving the estimates of the extent of pipework to be transferred and the maintenance costs in their operational areas.

120. This process is ongoing and companies are at different stages in their development of estimates, but early results from a number of companies have, according to Water UK, provided evidence that the costs are expected to be higher than those indicated by the UKWIR report and relied upon by Ofwat. In Water UK's view this work suggests an estimated range of annual bill increases of £4–£13, giving an average range of £7–£10 per household each year. These figures exclude pumping stations.

121. Bill increases would be permanent; bills will not decrease unless on account of efficiencies. Increases would vary across England and Wales. In areas where affordability of water bills is already a problem for low-income households, further bill increases may compound this. The 2004 Water Affordability Report sets out Ministers' decisions on water affordability following a review of the way in which lower income households are helped with their water and sewerage charges. The Government is currently undertaking more research into the issues surrounding affordability.

122. Whilst most property owners might regard shared sewers (and drains beyond property boundaries) as 'liabilities' rather than assets, some owners may object to their private pipes being taken from them, particularly where they may be deprived of a potential commercial opportunity, as transfer would mean that current owners would lose control over third party connections to their pipework. Section 106 of the Water Industry Act 1991 legislates for the right to connect to a public sewer. However, since owners would no longer be responsible for any problems occurring as a result of new connections or build-over post transfer, this may not be a significant concern. While access to property to allow WaSCs to perform work on sewers on private land would be a consideration, section 159 of the Water Industry Act 1991 allows for this provided 'reasonable' notice is given to the owner/occupier of the land.

Benefits

123. Just as some of the costs of transfer would be redistributed from private sewer owners to WaSCs and their customers, so certain benefits would result from this redistribution. There would also be incremental benefits.

124. Private sewer owners would no longer incur the repair and maintenance costs currently associated with private sewers. These costs would be redistributed to WaSCs.

125. Clarity of responsibility for private sewers and laterals would be achieved and all customers would have a single point of contact for their sewerage services. Confusion and disputes over ownership and responsibility would be significantly reduced. All customers paying a sewerage charge would receive the same services from their WaSC to cover all sewerage infrastructure serving their

Chapter 4 – Costs and benefits

property. This would also mean that all customers would be eligible for GSS payments to compensate for poor service relating to sewerage. Currently private sewer owners do not qualify for GSS payments for their private sewers because these assets are not subject to WaSCs' statutory duties.

126. Clarification of ownership would be achieved. After transfer, all 'sewers' and all 'laterals' other than on entirely private networks would be the responsibility of WaSCs while all in-curtilage drains would remain the responsibility of their owners. This might also have the benefit of clarifying insurance issues for owners, namely that only assets remaining in their ownership, i.e. drains within their curtilage, need be covered by insurance if preferred (see paragraphs 91–96). The impact of transfer on the insurance industry is covered in the Competition Assessment in Chapter 7.

127. It is likely that fewer people would complain about their responsibilities or seek help and advice from the range of bodies currently contacted about problems relating to private sewers: Ofwat, CCWater, WaSCs, Government and local authorities – all of whom should have administration burdens related to complaint handling reduced by transfer. Realistically this benefit would only be felt after a period of 'bedding in'; initially transfer may generate questions from the public.

128. As identified in paragraphs 113 and 114 WaSCs would incur a transfer of costs currently borne by private sewer owners as well as new costs. In return, a number of incremental changes to the work performed on private sewers and drains would be likely, such as 'planned' maintenance that current private sewer owners do not undertake. For example, pumping stations would be maintained to a better standard, compliant with health and safety regulations. Service outputs would be improved at sites of recurring flooding.

129. Transfer will give a fuller understanding of the extent of sewer flooding. It is understood that there are instances of sewer flooding associated with private sewers. However, as these occur on private assets, they may not necessarily be known to WaSCs and in any event are unlikely to be reported to Ofwat as part of the regulatory reporting process. Blockages are a significant cause of sewer flooding and anecdotal evidence suggests that there maybe up to 10 times more blockages on the private sewerage system than on the public sewer network (see paragraph 20).

130. Within their set price limits, WaSCs have achieved year-on-year reductions in actual sewer flooding on the public sewer network and it seems reasonable to assume that this trend would apply to the sewers adopted by WaSCs under transfer (see graph at **Annex J**).

131. Post-transfer there would be no need for local authorities to undertake repair work to private sewers causing an environmental or amenity problem in cases where owners cannot or will not organise works for themselves.

132. Transferring private sewers and drains to WaSCs would further an integrated approach to the management of sewerage infrastructure in England and Wales. WaSCs would be able to develop strategic overviews of the entire asset base draining to the public network and so co-ordinate the management of a much wider network, developments that would bring a number of new benefits:

- WaSCs could prioritise cases where pipe failures and/or misconnections lead to the pollution of the land (soil), surface or ground waters and where problems of under-capacity or surface water drainage threaten flooding.

Review of Existing Private Sewers and Drains in England and Wales

- WaSCs use hydraulic models to evaluate where homes may be at risk of flooding, but these do not account for private sewers. Following transfer WaSCs could incorporate existing private sewers into their rankings for maintenance and capital investment which is likely to help resolve problems that cause sewer flooding faster and therefore reduce risks to public health.³¹
- These hydraulic models can also be used to ascertain effective methods to minimise the ingress of surface water and infiltration into the wider sewerage system, thereby reducing energy costs associated with pumping and treatment.
- WaSCs would be in a position to undertake investment planning on an area-wide basis and a cost-effective approach to monitoring and maintaining the condition of assets.
- WaSCs could identify problematic networks over time if, for example, certain sites experienced recurring problems. These could be assessed and taken into account by the companies in future maintenance programmes. It would be in the interests of WaSCs to perform repairs, for example to a collapsed pipe, to a high standard to minimise the risk of further failure, thus encouraging long-term solutions to problems.
- Management of data recording. Mapping of the network would be extended as former private sewers became known to WaSCs and mapped accordingly.

133. Private sewer owners would clearly benefit from these changes. Atkins estimated that 39 per cent of properties whose owners pay a water and sewerage bill drain by a private sewer before ultimately being connected to the public sewer network. However, customers already served by the public network would also benefit due to the proposed inclusion in transfer of lateral drains. The majority of properties in England and Wales are connected to the sewerage system by a lateral drain. While some owners would benefit from having both their private sewer and lateral transferred, most customers in England and Wales would benefit from having their lateral transferred. Only in exceptional circumstances – where a property has a public sewer already within its curtilage *and* is connected directly into this sewer by its own drain (also within its curtilage) – would there would be no benefits from transfer.³²

134. Transfer would have wider benefits than simply eliminating risks for current private sewer owners. It would remove the possibility that people currently served by the public network might become private sewer owners following a move of house.

³¹ An absence of data on current levels of flooding on private sewers and the delays to resolution caused by current arrangements mean that this likely improvement is not possible to quantify.

³² In the survey work carried out by UKWIR, all but one of the 2000 properties sampled had a lateral drain either in another curtilage or under a public highway. It should be noted that this was a very small sample.

Chapter 4 – Costs and benefits

Option 5 – Improve guidance

Costs

135. There would be limited costs to Defra and the Welsh Assembly Government in producing guidance to private sewer owners. Resource and staff costs will be low given that the majority of the information has already been gathered through the review of private sewers and would therefore simply need organising and disseminating by Government.

Benefits

136. Clearer guidance may in some instances lead to faster resolution of problems than is currently the case. Increased awareness of insurance cover may mean that private sewer owners are quicker to act on problems when they arise, knowing that the costs will to some extent be covered.

137. Private sewer owners will be clear on their roles and responsibilities. This will address the confusion over current arrangements. Through the provision of information on insurance options owners will also be more aware of how to mitigate risks of ownership and, from 2007, the HIP will make, home buyers aware of the ownership status of the sewers and drains serving the vendors property.

Chapter 5 – Legal Aid Impact Assessment

138. A transfer of private sewers and laterals to WaSCs is extremely unlikely to place new burdens on the legal aid fund. WaSCs will not be eligible to draw on this benefit whilst private sewer owners will no longer own their sewers or laterals and will therefore have less reason to initiate or become involved in legal disputes (in any event it is unlikely that the majority of private sewer owners are eligible for legal aid).

139. Under the conditions of transfer the general duty of WaSCs under section 94 of the Water Industry Act 1991 to effectually drain their area would be extended to include maintenance and operation of the newly adopted assets. If any customer had reason to dispute that a WaSC was carrying out this duty, they would be entitled to use the channels of appeal through Ofwat and may be entitled to compensation payment under the Guaranteed Standards Scheme (GSS).

Chapter 6 – Small Firms Impact Test

140. The only small firms likely to be affected by a transfer of private sewers and laterals are those in the drain repair industry. Currently these firms perform maintenance and repair work to private sewerage and drainage, most of which would become vested in WaSCs post-transfer.

141. The insurance industry Drainage Forum estimates the value of the drainage repair industry at £272 million per annum. There are an estimated one thousand to fifteen hundred firms operating throughout England and Wales – nearly all are understood to be small businesses employing significantly under 50 people.

142. These small businesses tend to be ‘small bore specialists’ operating cleaning, surveying and repair services primarily within and around the curtilage of a property. Drains within the curtilage will remain the responsibility of the householder if ownership of private sewers and lateral drains is transferred to WaSCs.

143. The Defra led seminar ‘Review of Existing Private Sewers: What Next?’ in January 2005 included an ‘Impact on Small Businesses’ workshop, introduced by the Small Business Service (SBS). Delegates from the drain repair industry were asked how they anticipated a transfer of ownership might affect small businesses and whether any of the impacts could be mitigated. Results of this discussion can be viewed at:
<http://www.defra.gov.uk/environment/water/industry/sewers/existing/pdf/workshop1.pdf>.

144. In summary the majority of delegates thought that transfer of ownership would be perceived by small businesses working in the sector as more of a threat than an opportunity. The industry is fragmented with inconsistent working practices and no single representative trade body. It was thought that micro businesses (firms employing less than 5 people) in particular would not have the opportunity to develop and expand their operation. They were also likely to lack the infrastructural support that larger suppliers have to assess and determine what services they may offer in the future.

145. Though it was noted that drain work within the curtilage would remain, two concerns were expressed. One was a potential liability issue perceived to arise if rodding or jetting caused downstream damage to weak laterals which, post-transfer, would be owned by WaSCs rather than householders. The other perceived concern was that householders, as a reflex action, would contact the WaSC whatever the blockage. If a WaSC’s contractor attended but determined that the blockage lay within the curtilage of a property, the contractor might nonetheless offer to deal with the problem (privately) as he was already in attendance.

146. As no micro businesses attended the workshop, their views were sought in a telephone survey, with guidance from the SBS. An online directory (www.countyweb.com) was used to identify drain and sewer repair firms from counties within the area of the ten WaSCs. These are presented in Table 7 below.

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Table 7 – Number of companies contacted within area of the ten WaSCs

S/U Area	Number of calls	No. of companies responded to test		
		= Microbusiness	<50 = Small Business	Other
Anglian	43	2	0	1
Southern		0	1	0
Thames		3	3	0
South West	49	0	4	0
Welsh		2	0	0
Wessex		0	0	0
Northumbrian	24	0	0	0
United Utilities		0	2	0
Yorkshire		1	3	0
Severn Trent	29	0	1	0

147. 145 calls were made to firms listed as 'Drain & Sewer Repair' and 'Pipework Contractors' across the UK. The response rate was, however, disappointing. Only 23 of the firms contacted agreed to spare the time to answer questions and share further comments. Of the remainder, many were either unable or reluctant to provide comments. Feedback was constrained by respondents' lack of familiarity with the review of private sewers or of the implications for their sector. Many were sceptical about a transfer taking place, citing the difficulties and costs of such an exercise as major obstacles.

148. It is difficult to extrapolate from responses and estimate generally how much work is undertaken outside the property curtilage, as answers ranged from 10 per cent to 90 per cent. However, those firms who estimated that over 50 per cent of their work was performed outside the curtilage, tended to employ between 5 and 45 staff. Those firms whose work was concentrated mainly within the curtilage tended to employ between 1 and 4 staff.

149. The survey suggested that businesses employing between 1 and 10 people viewed a transfer of ownership as a threat to their business or operating practices, albeit noting that work within the curtilage would in theory remain. Businesses employing between 30 and 50 people believed a transfer could present a challenge but also the opportunity to work on contracts for WaSCs – a view expressed by some delegates at the seminar.

150. Feedback from Water UK on the concerns expressed by small businesses suggests that WaSCs envisage their current contractors would not have sufficient manpower to meet the additional workload post-transfer, at least in the short and medium term and would have to sub-contract a significant proportion of this work to existing small drain repair firms, who have the requisite equipment and expertise. However, one trade association expressed concern that the procurement procedure will be price driven and some well qualified businesses may not be thought sufficiently competitive.

Chapter 6 – Small Firms Impact Test

151. Currently, Energy and Utility Skills – under licence to the Department for Education and Skills – has worked with the sewerage industry to identify National Occupational Standards in a Sewerage Maintenance Standards project, and currently offers National Vocational Qualifications covering sewer maintenance.³³ WaSCs support the project and small businesses who obtain the qualification are likely to make themselves more attractive as sub-contractors.

152. Defra will continue to listen to the concerns of small businesses in the drain repair industry and invite them to respond to future consultations on implementing transfer. The SFIT has been undertaken with the approval of the SBS which has indicated that it is satisfied the concerns of the sector have been taken into account.

³³ The NVQ is available until March 2007, when it may be subject to review by the accreditation body CABWI.

Chapter 7 – Competition assessment

Competition Filter

153. The option to transfer ownership of private sewers and laterals to WaSCs been analysed to understand the likely affects on competition in the water and sewerage industry. Although WaSCs will be affected by a transfer, they do not require the application of a competition filter due to the industry's structure as a statutory monopoly.

154. For comparison, the structure of the water industry in Scotland is different. The Water Industry (Scotland) Act 2002 created one public corporation called Scottish Water. This gave the Scottish water industry more ability to compete in the growing market for single-contract services to customers both domestic and abroad; to improve customer services; and to correct cost inefficiencies.³⁴

155. Ofwat is the statutory, independent economic regulator of the water industry in England and Wales. Its role includes setting price limits for water and sewerage services.

Drain Repair Industry

156. Drain repair businesses will be affected by a transfer of private sewers and lateral drains to WaSCs and therefore the competition filter has been applied to this market in England and Wales. The majority of businesses are small, many of them operating with fewer than five members of staff, and lack representation by a single industry body.

157. Drain repair businesses currently offer services on privately-owned pipe work both inside and outside a property's curtilage. They charge the owners of the pipes for each job undertaken. Where pipes are in public ownership any maintenance and repair is managed by WaSCs who charge all customers annually for water and sewerage services, including the maintenance and repair of the public sewerage network.

158. It is estimated that the total amount of private drainage is 280,000km inside and outside the curtilage. Under transfer up to approximately 55 per cent of privately owned infrastructure could be taken over by WaSCs from individual property owners. This figure relates to those sections of privately-owned pipework that extend beyond the property curtilage. This would increase the overall size of the network for which WaSCs were responsible by approximately 35 per cent. Depending on how WaSCs undertake the repair and maintenance of these assets – whether through existing contracts for drainage repair or new contracts with drain repair companies – the transfer may reduce the amount of work available to drain repair businesses under direct agreement with the property owner.

159. Although it is possible that drain repair businesses could be used as sub-contractors by WaSCs post-transfer, the smaller firms in the industry might struggle to meet WaSC requirements when seeking work with them on a contract basis. In this respect the market structure could change; some smaller firms may go out of business or be subject to takeover by larger firms. The extent to which such changes may happen would depend on a number of factors, such as the percentage of work currently undertaken by drain repair businesses outside the property curtilage.

160. For businesses attempting to enter the market, a transfer could lead to higher set-up costs if, for example, WaSCs required businesses seeking contracts with them to meet certain standards or undergo specialised training. A transfer would not lead to higher on-going costs for new businesses

³⁴ Although it remains a public utility with objectives set by Ministers, Scottish Water is run as a business. It is funded through water charges (70 per cent) and government borrowing (30 per cent). The utility has to make a rate of return as there are no grants or free money available. Any profits which are made are recycled as investment or to support lower rates of borrowing.

Chapter 7 – Competition assessment

that existing businesses do not have to meet.

161. While working methods are updated regularly the drain repair market is not subject to rapid technological change.

162. A transfer would result in the market for drain repair work outside the property curtilage changing from individuals procuring the services of drain repair businesses to WaSCs organising the work. Drain repair businesses could however seek contract work from WaSCs.

163. A transfer would not restrict the ability of drain repair businesses to choose the price, quality, range or location of their services for the approximate remaining 45 per cent of the private drainage network – that part of the privately-owned pipework that runs within the property curtilage or does not drain to a public sewer.

Conclusions

164. The filter suggests that a transfer to WaSCs could have an effect on competition, therefore a more detailed analysis has been undertaken.

Current Market

165. One source in the water industry has estimated that there are between 1000 - 1500 drainage businesses in England and Wales. A leading drain clearance and maintenance business operating nationwide through a network of 84 licensed franchises estimates that it had a 12 per cent share of the drain clearance market. By its own account this group carried out around 300,000 jobs relating to the cleaning, surveying and repair of the drainage system in 2004.

166. Drain repair businesses operate both inside and outside the property curtilage. The total amount of drainage currently in private ownership is estimated to be 280,000km, approximately 45 per cent of which would remain in private ownership after transfer because it is either within the curtilage or does not drain to a public sewer.

167. As part of the Small Firms Impact Test 145 calls were made to firms in England and Wales listed as 'Drain and Sewer Repair' and 'Pipework Contractors'. Of these, 23 agreed to answer questions. It is difficult to extrapolate from their responses how much work is undertaken outside the curtilage, since answers on this question ranged from 10 per cent to 90 per cent. However, it has been estimated that 45 per cent of the total amount of private drainage is either within the curtilage of properties or does not drain to a public sewer and that 55 per cent is outside the curtilage. As this is the amount of pipework available to private drain repair firms to work on it could be reasonable to say that around 45 per cent of work is completed within the curtilage and 55 per cent outside the curtilage.

168. The drain repair industry is a competitive market within which firms vie for the business of individual households. WaSCs generally do not undertake work on private sewers and drains as they are not responsible for problems occurring on them. In some cases, WaSCs may recommend reputable drain repair contractors to households where drainage problems exist. Property owners are free to choose their supplier.

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169. Some WaSCs have associates within their group who offer drainage services. Condition F of WaSCs' instruments of appointment requires that all transactions with associate companies be carried out at arm's length, so as to ensure that there is no cross-subsidy between the regulated and associate business. The requirements of this condition are enforceable by Ofwat, which has a duty to ensure that the regulated water and sewerage business complies with its conditions of appointments.

170. Using information available to customers, prices for emergency drain clearance appear to range from around £100 to £280 depending on the time of day. In addition there are usually various surcharges for weekends and public holidays.

Related Markets

Insurance

171. Some property owners may be able to claim for the cost of repairs to private sewers on their insurance policy. Insurers usually only provide cover for accidental damage and not wear and tear. Insurance companies may require that work is undertaken by reputable drain repair companies.

172. A number of companies offer specialist policies covering domestic plumbing and drainage problems such as burst water pipes, leaking water cylinders and collapsed and blocked drains.

173. The annual cost of insurance claims for private sewers and drains (including building drainage) is around £109 million. Of this, it is estimated that private sewers account for 20 per cent of repair costs, giving a figure of around £22 million.

174. Defra has consulted with the insurance industry's Property Claims Forum (PCF) in order to gain a better understanding of how a transfer might affect competition in the insurance industry. The PCF members are: Cornhill, CIS, Legal and General, Halifax, AXA, Lloyds TSB, Royal Bank of Scotland, Zurich, and Royal & Sun Alliance.

175. Drawing on information provided by the PCF it is estimated that the top five insurance companies hold 60 per cent of the insurance market, with three of these companies holding over 10 per cent of the market each.

176. The PCF believes that any costs associated with a transfer would not affect some firms more than others. Insurance cover offered for drains and sewers is typical across the market. Insurers tend to deal with such claims in a standard fashion both in terms of repairs and administration.

177. The PCF also believes that a transfer of ownership will have a negligible effect on the industry generally, and will have no effect in terms of relative competition.

178. According to the PCF a transfer would not lead to higher set up costs for new firms attempting to enter the market since drain or sewer claims are insignificant both in terms of the cover offered by insurers under buildings policies and costs to insurers.

179. Furthermore, the PCF argues that a transfer would not lead to higher ongoing costs for new firms since they would be competing on a level playing field.

Chapter 7 – Competition assessment

180. The insurance industry is not characterised by rapid technological change, and a transfer would not affect the ability of firms to choose the price, quality, range or location of their products.

181. Insurance providers could potentially achieve a higher take-up of their policies if more private sewer owners were aware of their responsibilities and the cover offered by insurers. It is also possible that the insurance market would develop new products to cater for increasing awareness and the consequent desire of consumers to mitigate the risks of private sewer ownership.

Conclusions

182. The filter suggests that a transfer to WaSCs would not have a significant effect on competition in the insurance industry.

Effect On Market

183. A transfer of all private sewers and laterals into the ownership of WaSCs would amount to the transfer of an estimated 35 per cent of the network being removed from the responsibilities of private sewer owners.

184. Householders would retain responsibility for pipes within the curtilage of properties. An estimated 45 per cent of private drainage would be retained in private ownership. Householders would choose suitable firms to undertake any repair or maintenance work on these pipes, as is currently the case.

185. WaSCs currently manage approximately 309,000km of public sewers; transferring private sewers and laterals would increase their asset base by approximately 35 per cent.

186. Under transfer the market for drainage services would change; householders would become responsible for a smaller part of the network while WaSCs would become responsible for a larger proportion. For work within the curtilage, property owners would be free, as they are now, to choose a supplier. For the part of the network transferred to WaSCs, it will be for each WaSC to determine how it will procure drain repair work. Some WaSCs have indicated that they would use smaller contractors to undertake work on the private sewers and drains transferred.

187. The target market for drain repair firms would proportionally shift from home owners/occupiers to WaSCs.

Inset Appointments

188. Inset appointments are a process by which an appointment as a statutory undertaker may be made. An inset appointee has the same statutory responsibilities as are placed on all statutory WaSCs by legislation. Any activity, such as drain clearance or repair performed on private sewers or drains would be done not as part of their undertaking but as a private company in competition with other repair operatives.

189. A transfer of private sewers and laterals is unlikely to have any significant effect on the inset appointments process. Any company appointed by this method would be treated in the same way as incumbent statutory undertakers – i.e. the WaSCs.

Review of Existing Private Sewers and Drains in England and Wales

Effect On Market Structure

190. During the Defra seminar held in January 2005, some representatives of the drain repair industry commented that a transfer could provide an opportunity to take on more work from the WaSCs. It was felt that the WaSCs may not be able to handle a sudden increase in work and that the drain repair market could benefit from this.

191. Equally, representations have also been made by organisations who feel that WaSCs may wish to retain their current contractors, creating fewer opportunities for other businesses. Although an increase in workload for those contractors could have the knock-on effect of creating new labour demands.

Related Markets

192. Some stakeholders expressed concern that a number of drain repair businesses might be trading without sufficient technical expertise. A transfer could encourage more contractors to undertake relevant training as required by the WaSCs. This in turn could provide opportunities for organisations offering training to gain extra business.

193. A transfer could also mean a reduction in the number of insurance claims relating to private sewers and lateral drains, allowing insurance companies to redefine the scope of cover provided. These changes could, over time, be reflected in the cost of insurance to property owners.

Barriers to Entry

194. Not all businesses may be able to meet the requirements of WaSCs, which could lead to smaller companies either going out of business or merging with larger companies. It could also make starting up a drain repair business more challenging.

Customer Choice

195. A transfer to WaSCs would reduce the risk of private sewer owners paying costs in the region of £100 - £280 for emergency drain repair clearance on pipe-work outside the curtilage of their property. Instead, WaSC customers would pay an estimated increase of around £3–£11 per year, depending on WaSC area in their annual water and sewerage bill to cover the costs of transfer.

Differential Effects on Firms

196. Smaller firms may be less able to respond to a change in the market since it is unlikely that they have the same level of business infrastructure and support as larger firms.

Conclusion

197. A transfer of ownership is likely to change the current market structure in the drain repair industry insofar as customers for drain repair services would cease to be private sewer owners and become WaSCs. Possible impacts on competition in the drain repair industry include:

- Approximately 55 per cent of the sewerage network currently in private ownership will be transferred to WaSCs.
- The amount of work available to drain repair firms directly from the householder is likely to decrease.

Chapter 7 – Competition assessment

- It is possible that WaSCs will need to contract out some of the extra work to the drain repair industry.
- Competition for contract work from WaSCs could increase which could improve standards of training and workmanship.
- Some smaller businesses may be less able to compete and could cease trading or merge with other firms.

Chapter 8 – Enforcement, monitoring and sanctions

Enforcement

198. The 'Do nothing' option would mean that current problems with compliance and enforcement would remain. The difficulty in ascertaining precisely who is responsible for a private sewer and the problems involved in getting private sewer owners to pay for maintenance and repairs to their assets, mean that compliance and enforcement are not straightforward.

199. Section 114 of the Water Industry Act 1991, empowers WaSCs to investigate certain problems with private sewers and laterals, but does not give them powers to undertake or enforce necessary repairs or renewals.

200. Similarly, local authorities only have limited powers to ensure that repairs to private sewers are carried out. Sections 59 and 99 of the Building Act 1984 permit local authorities to deal with problems relating to private sewers and they may use these powers in cases where owners cannot or will not undertake necessary work. In these scenarios local authorities can reclaim costs from the owners, but this in itself can be difficult to enforce and may be inefficient.

201. The guidance option cannot be enforced. Although guidance could be made available to clarify the current situation, it would not necessarily make private sewer owners more likely to co-operate; rather they might continue to object to their responsibilities and refuse to play their part in resolving problems. Under the current system there is no easy or convenient mechanism to enforce owners' responsibilities (see paragraph 25).

202. The enforcement authorities for legislation governing the water industry are the Secretary of State for Environment, Food and Rural Affairs, National Assembly for Wales and Ofwat. Different parts of legislation are enforced by different authorities. If transfer is the selected option an enabling power which allows the Secretary of State for Environment, Food and Rural Affairs or the National Assembly for Wales³⁵ to make regulations providing for them to make schemes for the adoption of private sewers, would come into force.³⁶ Those regulations may require WaSCs to submit draft schemes to the Secretary of State or the National Assembly for Wales for their approval. The details of how WaSCs are required to adopt private sewers and drains will be included in the regulations, which will be enforceable by the Secretary of State and the National Assembly for Wales under section 18 of the Water Industry Act 1991.

203. If the Secretary of State and the National Assembly for Wales are satisfied that a company has contravened, or is likely to contravene, any of its duties under section 105A of the Water Industry Act 1991, they have a duty to make an enforcement order under section 18 of that Act requiring the company to put matters right.

204. Compliance and further enforcement duties would fall within Ofwat's existing role. As the independent economic regulator of the water industry, Ofwat's responsibilities include the enforcement of conditions imposed on the companies by their license agreements, issuing Enforcement Orders on companies in breach of those terms, and monitoring their activities on an ongoing basis. Post-transfer these regulatory duties would apply to a larger sewerage network, estimated to increase by 35 per cent and Ofwat would be required to monitor transferred assets separately from those assets already owned by WaSCs at the time of transfer.

³⁵ The National Assembly for Wales' powers are exercisable in relation to WaSCs whose areas are wholly or mainly in Wales: the Secretary of State's powers are exercisable in relation to all other WaSCs.

³⁶ The Water Act 2003 amended the Water Industry Act 1991 to include this enabling power under section 105A(1).

Chapter 8 – Enforcement, monitoring and sanctions

Monitoring

205. The 'Do nothing' option would mean that current arrangements remain unchanged. Therefore monitoring mechanisms or processes would not be required.

206. Provision of guidance would require future evaluation to determine whether the information provided to customers had achieved its aims of increasing awareness of the current situation and ways to mitigate its potential problems. Evaluation would be carried out by Defra in conjunction with CCWater.

Periodic Review

207. The 'efficient' costs associated with the transfer of private sewers and laterals to WaSCs would be recovered via customer bills. These will translate as increases to the annual water and sewerage bill and will be subject to Ofwat scrutiny.

208. Ofwat is the independent, statutory economic regulator of water and sewerage services in England and Wales and has sole responsibility for setting price limits as a condition of WaSCs' appointments.

209. Ofwat also has a primary duty to further the consumer objective by having regard for and protecting the interests of consumers. The periodic review process and the information it provides enable Ofwat to establish with sufficient certainty what the functions of companies will be in the five years under review, what the costs of efficiently carrying out those functions will be, and what will be in the interests of customers.

Ofwat Monitoring

210. WaSCs operate under licences, granted by the Secretary of State for Environment, Food and Rural Affairs and by the National Assembly for Wales, to provide water and sewerage services in England and Wales.

211. Ofwat monitors the activities of companies on an ongoing basis. Every year it asks the companies to provide information about the previous year (ending 31 March) in the June Return. These reports provide details on a wide variety of activities including levels of customer service, new additions to the network and leakage information, and allow the regulator to compare performance levels between companies.

212. Ofwat requires each water company in England and Wales to appoint an independent professional, known as the Reporter, to examine, test and give his opinion on this information. Reporters work closely with their companies during the development of their regulatory information submissions.

213. Any additional assets transferred to WaSCs would be monitored in the same way as the rest of the public network, but would need to be collated, reported to Ofwat and ring-fenced separately to enable Ofwat to reconcile funding with output measures and levels of service delivered. Future performance levels of current assets will need to be compared to the historic performance of similar sewers. The rate of blockage per km is anticipated to be significantly higher in the assets suggested for transfer than the current rate for public sewers.

Review of Existing Private Sewers and Drains in England and Wales

214. If sewers were transferred on an 'on application' basis, Ofwat could require companies to provide information on the up-take rates in the June Returns.

215. Ofwat checks that companies are meeting the outputs assumed in the price limits which have been set. Ongoing monitoring allows it take early action if needed.

Sanctions

216. The 'Do nothing' and guidance options would not require sanctions.

217. Transfer would mean that WaSCs' performance in relation to all newly acquired assets would be subject to the regime of sanctions currently at the disposal of the enforcement authorities (the Secretary of State for Environment, Food and Rural Affairs, National Assembly for Wales and Ofwat). Since April 2005 each enforcement authority has been able to impose financial penalties of up to 10 per cent of turnover where a company contravenes its licence or appointment conditions, or fails to meet required standards in performing its duties.

Chapter 9 – Implementation and delivery plan

218. The Water Act 2003 amended the Water Industry Act 1991 to include an enabling power which allows the Secretary of State for Environment, Food and Rural Affairs and the National Assembly for Wales to make regulations to require WaSCs to adopt private sewers, should this option be taken. The details of how WaSCs are required to adopt private sewers will be included in the regulations, which will be enforceable by the Secretary of State under section 18 of the Water Industry Act 1991.

219. The method of implementation will determine the details of the final implementation and delivery plan. If the decision to transfer existing private sewers to WaSCs is taken, a public consultation will be held on the possible implementation options (see **Annex A**).

220. There is a framework for implementation already in place insofar as Ofwat will allow provisions for WaSCs' funding through its Periodic Review – the next being PR09 – to enable efficient companies to effectively perform their statutory duties over their extended asset base.

221. A communications strategy will be developed once the implementation option is known, to explain to householders any policy changes and how these will affect their rights and responsibilities.

Chapter 10 – Post-implementation review

222. If the decision is taken to transfer private sewers to WaSCs a three-month public consultation will be held on the possible implementation options. The outcome of this process will determine how a transfer is effected and therefore how a detailed post-implementation review is formulated.

223. Performance of WaSCs will be monitored by Ofwat; companies' statutory duties will be applied to their newly acquired assets and they will be subject to the monitoring and enforcement procedures set out in paragraphs 210 – 215. Consumer Council for Water (CCWater) would potentially play a role in reviewing customer satisfaction with transfer, should it go ahead. CCWater has a statutory duty to investigate customer complaints about WaSCs if they feel that the company has not satisfactorily performed its duties.

Chapter 11 – Summary and recommendation

224. In its response to the 2003 consultation the Government acknowledged the strong support for resolving the problems caused by private sewers and drains in England and Wales and concluded that there was a clear case for action. The Government also acknowledged that the transfer of private sewers to WaSCs received the highest level of support in responses to the consultation, and appeared to provide the only comprehensive solution to current problems. Government concluded that, based on high levels of support, it seemed sensible to include lateral drains in any transfer. It therefore undertook to look into the option of transferring private sewers and lateral drains into the ownership of WaSCs in greater detail.

225. Subsequent consultations have been held with stakeholders, including a seminar, customer survey, Small Firms Impact Test and competition assessment. Ofwat has provided estimates of the potential costs to WaSCs and consequent bill increases for customers. This RIA has presented the information gathered and explained the costs and benefits of two options for addressing the problems caused by private sewers and lateral drains, measured against a baseline of 'Do nothing'.

226. Transfer of existing private sewers and drains to WaSCs would comprehensively relieve current owners of their existing risks and burdens of ownership. It would redistribute the maintenance and repair costs currently borne by private sewer owners to WaSCs. Costs on transfer to WaSCs are estimated by Ofwat to be £1.4bn over twenty years for capital expenditure and £23m for average annual operating expenditure. Included in these costs to WaSCs would be incremental costs that would bring beneficial new work such as upgrading pumping stations. WaSCs state that they would incur increased administrative costs following transfer. These costs however are not possible to separate and quantify with any accuracy.

227. The consequent bill increases, estimated by Ofwat as a range from £3–£11 annually would be passed on to the generality of customers. Water UK has advised that in their view early indications from further ongoing WaSC research suggest that bill increases may be in the region of £4–£13, excluding pumping stations. This serves to underline the uncertainty as to the extent and condition of the network that would fall to be transferred. This uncertainty is the major risk that comes with transfer.

228. The comprehensive solution offered by transfer includes:

- Clarity of responsibility for maintenance of sewers and laterals
- Private sewer owners would no longer have to cover maintenance and repair costs of private sewers
- All customers paying a sewerage bill would receive the same scope of WaSC services
- WaSCs could achieve integrated and more efficient management of the sewerage network as a whole, prioritising problems that have environmental or re-occurring impacts
- The performance of WaSCs is monitored by Ofwat; transfer would ensure that all sewers previously the responsibility of their owners would now be subject to Ofwat's performance standards in terms of their serviceability
- Anyone served by a lateral drain, including householders served by the public sewerage system, would no longer be responsible for its maintenance and repair.

Review of Existing Private Sewers and Drains in England and Wales

229. Transfer would have wider benefits than simply eliminating risks for current private sewer owners. It would remove the possibility that people currently served by the public network might become private sewer owners following a move of house. Although the introduction of the Home Information Pack could potentially alert buyers to the ownership status of the sewers serving their prospective property, this would only improve awareness, it would not eradicate the problems that owning a private sewer can bring.

230. Improved guidance may provide a partial solution in that the current situation and ways to mitigate it would be better communicated to private sewer owners. In its 2004 Response paper the Government noted the value of guidance but acknowledged that it was not a comprehensive solution. Existing problems would not be solved, merely the requirements of private sewer owners to address them would be clarified. Producing guidance would incur low costs but also provide lower benefits.

231. Insurance cover provides a limited solution in that along with property drainage within the curtilage, some policies offer cover for laterals and private sewers for potential future problems. However, the varying nature of policies, the fact that most policies do not cover private sewers and do not cover wear and tear means that insurance is only a partial solution and one that costs owners premiums on top of the sewerage charges already paid in the annual water bill.

232. Based on responses to the 2003 consultation, on information gathered subsequently through further consultation with stakeholders and the objectives of the review, it is recommended that existing private sewers and lateral drains in England and Wales are transferred into the ownership of the ten WaSCs. This represents the only comprehensive solution to the range of problems associated with current ownership arrangements for private sewers and laterals.

233. However, it must be made clear that transfer of private sewers and laterals to WaSCs involves uncertainty over the extent and condition of these assets. This must be factored into any decision to transfer. These uncertainties make it impossible to know the exact cost of transfer to WaSCs and the consequent bill increases for customers. Work in these areas is ongoing, but without knowledge of the true extent and condition of existing private sewers, achievable only by mapping at extremely high cost, estimates may improve, but they will remain estimates.

234. A decision in principle to transfer would result in far-reaching changes and further public consultation is recommended to consider the alternatives to an automatic overnight implementation of transfer as covered in this RIA. Alternative approaches to implementation may affect the way in which costs are redistributed through sewerage bill increases to water and sewerage customers. Consultation would be accompanied by a partial RIA, discussing information gathered to date.

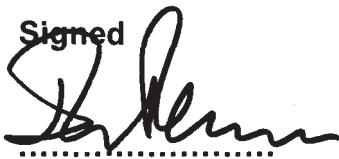
235. Time has passed since the last review of private sewers in 1986 in preparation for the privatisation of the then Water Authorities. We are a forward-moving society seeking to remedy perceived unfair burdens and alert to adaptation that may be required to deal with the impacts of climate change.

236. Transfer is recommended as the comprehensive way to solve current problems on existing private sewers and drains and to establish an holistic and integrated management of the sewer network in England and Wales. However, this system would only achieve maximum benefits if the proliferation of new private sewers is prevented. It is therefore also recommended that this question is addressed should transfer go ahead.

Chapter 12 – Declaration and publication

I have read the Regulatory Impact Assessment and I am satisfied that the benefits justify the costs.

Signed



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Date 22/2/07
.....

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Technical Annex

1. During the course of the Review of Existing Private Sewers and Drains in England and Wales, from its inception in 2001 to the drafting of this Regulatory Impact Assessment (RIA), much work has been done on estimating the extent of private sewers and laterals and the associated costs, both current costs borne by their owners and future costs on transfer to WaSCs and the consequent customer bill impacts.
2. However, the extent and condition of private sewers and laterals in England and Wales are not known with any certainty. As set out in the RIA private sewer owners are frequently unaware of their responsibilities for sewers they own. Water and sewerage companies (WaSCs) are required to keep appropriate records of their assets; they do not keep records of private sewers, since these assets are not in their ownership.
3. Therefore estimating the length of private sewers and laterals, their extent and condition is a challenging process that cannot be accurately performed without undertaking a comprehensive mapping exercise. Mapping of private sewers on this scale is provisionally estimated by UK Water Industry Research (UKWIR) to cost £118.5m.³⁷ Consequently, establishing the current costs of upgrading (where necessary), operating and maintaining these assets and calculating the costs of transfer to WaSCs have been challenging tasks and some uncertainty in associated costs still remains.
4. This Technical Annex explains the existing estimates of the extent and condition of private sewers and laterals, the associated costs and estimated bill impacts of transfer and their related methodologies that have been used in this RIA.

Atkins' cost estimates

5. For the purposes of the consultation paper issued by Defra and the Welsh Assembly Government (WAG) in July 2003, Atkins was appointed to review the extent of private sewers and drains in England and Wales, the problems with them and the annual costs associated with maintaining and operating them.
6. Information on the likely extent of private sewers and drains and the associated costs was gained from a variety of sources:
 - Drainage and Environmental Health Departments at Local Authorities
 - WaSCs
 - The English House Condition Survey (EHCS)
 - Insurance Companies
 - Ofwat June Returns
7. Atkins' research, which was published in the 2003 Defra consultation paper made the following estimates about the extent, condition and costs of private sewers and drains (laterals):

Extent

8. In order to estimate the extent of private sewers in England and Wales, Atkins analysed data from local authority postal survey questionnaires. Because these produced a wide range of possible

³⁷ Estimated in UKWIR's unpublished paper, *The Real Cost of Taking Over Private Sewers*, 2002.

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results due to the nature of the data involved, a cross-comparison against Ofwat and English House Condition Survey (EHCS) data was carried out. From this exercise it was concluded that the length of private sewers in England and Wales is between 80,000km and 200,000km. This range includes lateral drains that connect to private sewers but excludes laterals that drain directly to the public sewer network.

Condition

9. Atkins carried out CCTV surveys at 30 sites across England and Wales to examine the condition of a selection of private sewers.

10. The surveys included sewers in each area where problems were known as well as in areas where no problems had been reported. Table 1 summarises the findings (excluding the exact lengths of pipe which were known to have structural deficiencies).

Table 1 – Internal condition grades from CCTV analysis (excluding previously known defects)

	Internal Condition Grade (ICG)				
	1	2	3	4	5
% by length (3km total length)	55	12	16	15	2

As a guide, the ICG values correspond to the following typical conditions:

ICG 1: Acceptable structural condition

ICG 2: Minimal collapse risk in short term but potential for further deterioration

ICG 3: Collapse unlikely in near future but further deterioration likely

ICG 4: Collapse likely in foreseeable future

ICG 5: Collapsed or collapse imminent

11. A further consideration is that although lengths of sewer which were known to have structural deficiencies were excluded from the data in the above table, the figures do not represent a truly random sample of private sewers. The surveys were carried out at locations already identified as 'problematic'. Since private sewers in neighbouring streets were often built using the same materials and techniques (and possibly the same contractor) as the original 'problem' pipeline, it was reasonable to suspect that private sewers serving other houses in the area were also pre-disposed to defects. The results therefore provided an interesting 'snapshot' of the condition of the private sewers that were investigated, but should not be relied upon as representative of the general condition of private sewers in England and Wales.

Costs

12. Atkins extrapolated data collected from local authorities to arrive at an estimated £125m for the annual costs relating to private sewers. Atkins also discovered that the annual costs of insurance claims for private sewers and drains (including building drainage) are approximately £109 million.

Review of Existing Private Sewers and Drains in England and Wales

13. Ofwat data from 1997 – 2002 showed that the average operational expenditure for the then 306,000km of public sewers was £246m. Based on similarities with the public sewerage system, Atkins projected an estimate for annual operational expenditure on private sewers of between £64m and £160m for an estimated 80,000km – 200,000km of private sewers.³⁸ It was further concluded that based on averaged charges, customers' water and sewerage bills could increase by between £3 and £7 (on average) if an overnight transfer to WaSCs took place.

14. In this RIA Atkins' estimated range of £64m – £160m has been used to indicate the **current annual costs** of operating and maintaining private sewers and laterals. These costs are borne by the owners of private sewers and laterals in England and Wales.

Estimates of costs – WRc / UKWIR

15. UKWIR undertook work in 2002 to estimate the costs of WaSCs taking responsibility for private sewers. This work sought to derive the lengths of private sewers and laterals and the related costs of transfer.³⁹

16. This approach involved WRc determining figures for the average length of private sewers and lateral drains for different types of property (i.e. terraced, semi-detached etc) by age band and then multiplying these unit lengths by the numbers of properties in each category after appropriate adjustment. Data on numbers of properties by type and by age band were obtained from the 1996 EHCS. As there was no equivalent data source for Wales, a 6 per cent allowance was included to cover the principality.

17. Thus, the WRc/UKWIR approach produced single estimates for the lengths of private sewers and laterals in England and Wales as a whole rather than a wide range. More importantly however, unlike the methodology agreed by Defra and Atkins, the approach could be used to produce estimates of the length of private sewers at a regional and, ultimately, a company level. This was possible due to the breakdown of property numbers in the EHCS between Government Office regions. This could not however be extended to Wales.

Further work on costs undertaken by Ofwat

18. The customer research commissioned by Defra and the WAG in May 2005 and the comparison of options for the implementation of transfer, to be considered in the next stage of consultation, both needed cost estimates at company level in order to give a clearer picture of the costs of transfer to WaSCs and therefore the bill impacts for customers, and of whether there was any significant regional variation. The methodology agreed by Defra and Atkins could not be applied to produce these company level estimates due to the often incomplete data returned by respondents to postal studies.

19. Atkins' estimate of the length of private sewers was derived from limited information provided during the postal studies – hence the wide range estimate of 80,000km to 200,000km. At a company level, the data would fall to a level that was not statistically significant and could not be used to produce reliable estimates of sewer length.

³⁸ Note that this range was informed by cost information from local authorities and the insurance industry covered in paragraph 12; it is not in addition to those estimates.

³⁹ Contained in UKWIR's unpublished report prepared by WRc (Water Research Centre), The Real Cost of Taking Over Private Sewers and Drains, 2002.

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20. Additionally, as noted above, the methodology used by Atkins did not distinguish between private sewers and lateral drains. However, the estimated range of 80,000km to 200,000km does not include all laterals – it only includes those laterals that communicate with private sewers, omitting laterals that connect directly to the public network.

21. As stated above, the methodology used in the UKWIR study could be applied at a regional, then company level. Ofwat undertook the work to apply the UKWIR methodology to develop company estimates. The process of arriving at numbers of properties (by type and age band) in each company area was carried out in a number of stages. Firstly, property numbers were taken from billed household data provided by companies to Ofwat in the 2004 June Returns, and not from the EHCS 1996. The UKWIR report was based on the latter, which includes properties not connected to mains drainage even via a private sewer. It therefore may be expected to overestimate lengths of sewers and costs by about 4 per cent. Use of June Return data also allowed a refinement of the 6 per cent allowance previously adopted for Wales.

22. A table of the numbers of properties by type and age band was then produced for each Government Office region by apportioning property numbers between individual regions using the ratios implied by the breakdown in the EHCS. Information from companies on the number of billed households in each Government Office region covering their operating area was then used to produce a similar table for each company. The numbers therein were multiplied by the unit lengths of lateral drain / private sewer as set down in the UKWIR report to arrive at total lengths for each company. The total length of private sewers (foul and surface water) in England and Wales was estimated to be 136,000km and the total length of lateral drains was estimated at 21,000km. It is interesting to note that the total of 157,000km falls well within the range of 80,000km to 200,000km assessed by Atkins which, as has been noted, did not include all laterals.

23. The calculated lengths of sewer and lateral for WaSCs were then factored by unit rates that were derived from June Return data for the public network submitted by WaSCs over the last four years. This produced estimated costs for the planned and reactive maintenance of transferred assets, and for the renewal of assets at the end of their working life. This was a similar process as used by Atkins except that an adjustment to the unit rates was made to account for the fact that a large majority of the private sewerage network would be categorised as non-critical sewers.⁴⁰

24. As non-critical sewers are generally of smaller diameter and laid at shallower depths than critical sewers, unit renewal costs for transferred pipework will be lower than those indicated by the June Return data for the public sewer network, a significant proportion of which is categorised as critical. Conversely, as a higher proportion of blockages occur on non-critical sewers due to their smaller diameters, unit costs (cost per blockage) for reactive maintenance will be lower than for the public sewer network.

25. Using the methodology above, Ofwat produced estimated costs for the transfer of private sewers and laterals to WaSCs. The capital expenditure (capex) and operational expenditure (opex) associated with the automatic overnight transfer are set out below in tables 2 and 3.⁴¹

26. As required by HM Treasury, a discount rate of 3.5 per cent has been applied to all costs estimates quoted below.

⁴⁰ Non-critical sewers are defined as those sewers for which it is not cost-effective to carry out pre-emptive works unless numerous failures are occurring in a narrowly confined area. They can be generally characterised as the 'twigs' of the system, usually being of smaller diameter and laid at shallower depths than a typical critical sewer.

⁴¹ The estimates assume a total of 5,000 private pumping stations across the country which is the mid-point of the range determined by WRc in the UKWIR report. It has been further assumed that these are distributed between the WaSCs in the same proportion as the calculated lengths of lateral drain and private sewer.

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27. Discounting is a technique used to compare costs and benefits that occur in different time periods. It is a separate concept from inflation, and is based on the principle that, generally, society as a whole, prefers to receive goods and services sooner rather than later, and to defer costs to future generations. This is known as 'social time preference'; the 'social time preference rate' (STPR) is the rate at which society values the present compared to the future. The discount rate is used to convert all costs and benefits to 'present values', so that they can be compared. Calculating the present value of the differences between the streams of costs and benefits provides the net present value (NPV) of an option.

28. In this RIA costings are presented only for the preferred option and it has not been possible to provide monetised estimates of the benefits. As such, no overall NPV figure is available, but monetised costs have been converted into present values in order to provide a view of the relative importance of streams of costs. This RIA deals with public policy options which will be delivered by a private entity. A process which involved monetising the additional risk faced by private agents was considered, but discarded in favour of using the HM Treasury's recommended discount rate (3.5 per cent) owing to uncertainties and gaps in cost and benefit information. Where cost figures have been provided in quinquennial totals, for the purpose of discounting it has been assumed that these are spread evenly across the five years in question.

Table 2 – Estimated capital expenditure (discounted)

Incremental capital expenditure* WaSC five-year total £million (2002-03 prices)	2010-15	2015-20	2020-25	2025-30	Total 2010-30
<i>Option</i>					
Automatic overnight transfer	970	270	200	170	1,600

* These costs do not include any deductions for efficiency. Figures rounded to two significant figures.

Table 3 – Estimated operational expenditure (discounted)

Incremental operational expenditure* WaSC annual average £million (2002-03 prices)	2010-15	2015-20	2020-25	2025-30	Annual Average 2010-30
Automatic overnight transfer	31	27	23	19	25

* These costs do not include any deductions for efficiency. Figures rounded to two significant figures.

29. The capital expenditure costs are shown over the 20 years following transfer, though continue indefinitely. They include the costs to WaSCs of upgrading the private sewerage system, including laterals. These costs qualify as enhancement capital expenditure, defined by Ofwat as expenditure by WaSCs on new capital assets to secure a permanent, identifiable and measurable improvement in the level of service they provide.⁴² The figures also cover infrastructure renewals expenditure (IRE), defined by Ofwat as the preservation and replacement of sewerage assets to maintain their capability to deliver service to customers now and into the future.

⁴² Examples of improvement in levels of service include fewer supply interruptions for customers, improvements in the quality of drinking water and less pollution for the environment.

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30. Practical outputs by WaSCs resulting from capital expenditure following transfer could include upgrades to pumping stations and sections of sewers and laterals to bring assets up to a serviceable standard, and service outputs at sites of recurring flooding. Capital costs appear to be front-loaded because companies will be expected to bring transferred asset systems up to a serviceable standard in as short a timescale as practicable. Upgrades are a one-off expense and once complete (assumed by Ofwat to be around 2020), capex will drop to the level needed to simply maintain the assets.

31. The following components were included in operational expenditure:

- Planned and reactive maintenance⁴³
- GSS payments

32. The average annual operational costs also continue indefinitely beyond the twenty year period (2010 – 2030) used in Ofwat's modelling.

Bill impacts – Ofwat

33. Using this company-level cost information, Ofwat undertook financial modelling to estimate the bill impacts based on the incremental costs of the various possible options for implementing transfer which will be discussed in depth in the consultation and accompanying partial RIA on implementation options. It is important to note that the estimated costs of transfer to WaSCs and the consequent impacts on customer bills that are being assumed in this RIA relate to the most comprehensive option for transfer of ownership – an automatic overnight transfer of existing private sewers and laterals.

34. Ofwat's modelling produced estimates of the likely impacts on customers' bills as measured against an assumed baseline option of 'Do nothing'. The assumptions included in the baseline are set out in detail below. The bill impacts themselves were derived from modelling runs using Ofwat's Aquarius 3 financial model, version 6 (WIFL), which runs over a time horizon to 2029 – 30. All investment figures are presented in 2002 – 03 prices. The bill impact figures are presented in today's prices to be consistent with bills customers are paying in 2006 – 07.

Baseline

35. The baseline year underpinning the estimated marginal bill impacts is 2009 – 10. In order to take account of new investment beyond 2010, Ofwat assumed that a new programme of enhancements comes through at the same cost (and profile) as seen during 2005 – 10 for quality, service enhancements and, for most companies, security of supply. For companies in the south east (namely Northumbrian Water for its Essex and Suffolk area, and Southern Water) a 25 per cent uplift to the security of supply expenditure has been added to reflect the development of more costly new resources.

36. Ofwat did not change any of the assumptions on efficiency, asset life apportionments, grants and contributions, macro-economic and financing assumptions. These remain the same as in the PR04 Final Determinations. Financeability in the 2010 – 15 period has been assessed using the same rules as adopted in the Final Determinations for 2005 – 10.

⁴³ Ofwat's June Return definition of planned and reactive maintenance covers sewer collapses and blockage repairs, routine sewer flushing and cleaning and planned routine and reactive maintenance of pumping plants.

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37. Therefore the marginal bill increases arising from a transfer of existing private sewers and laterals to WaSCs are incremental to a baseline that assumes:

- no change to the cost of capital and financeability assumptions;
- no step change in base service requirements;
- completion of the existing enhancement programmes plus:
- a new quality programme of the same value as in 2005 – 10;
- a new service improvement programme of the same value as the sewer flooding programme in 2005 – 10; and
- a new programme of work to maintain security of supply of the same value as in 2005 – 10 for eight of the ten companies (for Northumbrian Water and Southern Water there is a 25 per cent uplift in costs).

38. The same investment assumptions have been extended beyond 2015 to 2030 in order to run the version of the financial model used for this RIA bill impact assessment. Tables 4 and 5 below give the quinquennial totals of capital investment and the annual average operating expenditure in the 'Do nothing' option from which all other options are assessed. The costs shown are net of efficiency savings and therefore decline in each successive quinquennium. Details for the 2005 – 10 period are provided for ease of reference.

Table 4 – Capital investment, quinquennial totals (discounted)

Capital investment five-year total £m (2003-2003 prices)	2005 – 10 FD	2010 – 15	2015 – 20	2020 – 25	2025 – 30	2010 – 30
Base service	7,700	6,700	5,500	4,500	3,700	20,000
Supply/demand balance	2,100	3,600	2,800	2,200	1,800	10,000
Quality enhancement	5,400	4,300	3,000	2,400	2,000	12,000
Enhanced service levels	630	590	420	340	270	1,600
WaSC total	16,000	15,000	12,000	9,500	7,700	44,000

* Figures rounded to two significant figures.

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Table 5 – Operating expenditure (discounted)

Operating Expenditure annual average £m (2003-03 prices)	2005 – 10 FD	2010 – 15	2015 – 20	2020 – 25	2025 – 30	2010 – 30
Base service	2,500	2,000	1,600	1,400	1,100	6,100
Supply/demand balance	28	70	74	61	50	250
Quality enhancement	79	140	150	120	100	510
Enhanced service levels	2.0	3.0	3.0	3.0	2.0	10.0
WaSC total	2,700	2,200	1,900	1,500	1,300	6,900

* Figures rounded to two significant figures.

39. Tables 6 and 7 show the incremental investment associated with an automatic overnight transfer to WaSCs that gives rise to the bill impacts set out below. The incremental investment shown below is net of efficiency savings⁴⁴ and is therefore lower than the costs set out in tables 2 and 3 above.

Table 6 – Incremental capital expenditure (discounted)

Incremental capital expenditure (after efficiency*) WaSC five year total £million (2002-03 prices)	2010-15	2015-20	2020-25	2025-30	Total 2010-30
<i>Option</i>					
Compulsory Overnight transfer	840	240	170	140	1,400

* Continuing efficiency assumptions for 2010-11 and beyond accumulate on top of all efficiencies (continuing and catch-up) in the 2005-10 period. Figures rounded to two significant figures.

Table 7 – Incremental operational expenditure (discounted)

Incremental operational expenditure (after efficiency*) WaSC annual average £million (2002-03 prices)	2010-15	2015-20	2020-25	2025-30	Annual Average 2010-30
<i>Option</i>					
Compulsory Overnight transfer	29	24	20	17	23

* Continuing efficiency assumptions for 2010-11 and beyond accumulate on top of all efficiencies (continuing and catch-up) in the 2005-10 period. Figures rounded to two significant figures.

⁴⁴ Within the financial model the costs are adjusted by efficiency assumptions giving rise to the values presented in tables 6 and 7. For the 2005-10 period the efficiency assumptions include the industry-wide continuing efficiency and company specific catch-up efficiency as in the PR04 Final Determinations. For 2010-11 and beyond only continuing efficiency is assumed. These accumulate on top of the 2005-10 efficiencies.

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Financeability Assumptions

40. The financeability assumptions underpinning the modelling follow the same principles as those adopted in the PR04 Final Determinations. These are:

- returns are at the cost of capital; plus
- where necessary, a financeability uplift to achieve stable trends in the financial indicators going forward from the 2009 – 10 levels projected in the determination.

Marginal bill impacts

41. Table 8 shows the marginal impact on average household bills of the incremental costs of the automatic overnight transfer option compared to the 'Do nothing' option at a national level.⁴⁵ These are shown at snap-shot years from year 1 to year 20.

Table 8 – Marginal impact on household bills

Marginal Bill Impacts WaSC Average (weighted) £(2005-06 prices)	Year 1 2010-11	Year 5 2014-15
<i>Option</i> Do nothing		
Automatic overnight transfer	3	6

42. Transfer – based on an automatic overnight transfer – would immediately increase WaSCs' operating costs and would therefore see customers' bills increase in the first year of transfer, as measured against the 'Do nothing' option, which would incur no bill increases. This is reflected in the above table by an average increase in the first year of £3.

43. The average full bill increase would be reflected by the fifth year after transfer, although Ofwat does not identify exactly in which year the full increase would be reached. This is reflected in table 8 by a full increase of £6 by year 5, which already accounts for the £3 increase in year 1. In other words the bill impact of this option will be fully reflected by year 5 (2014 – 2015), and permanently adds £6 to customers' bills.

44. Ofwat advises that these averages will vary regionally; bill increases in year 1 are likely to be between £1 and £6 and permanent increases – i.e. the estimated maximum bill impacts – are likely to vary regionally between £3 and £11.

Bill impacts – Water UK

45. Water UK has advised that since publication of the UKWIR report – from which Ofwat drew data to perform its estimates on costs and bill impacts – individual WaSCs are in the process of refining their understanding of these issues. Work by WaSCs is ongoing but early indications reported by Water UK suggest that annual bill increases may be in an estimated range of £4–£13

⁴⁵ England and Wales.

(excluding pumping stations), giving an average range of £7–£10 per household. As with Ofwat's estimates, assumption has been made that the maximum bill impact will be fully reflected by year 5 (2014 – 2015).⁴⁶

How do capex and opex feed into customer bills?

46. **Annex K** sets out Ofwat's broad approach to setting price limits. It is a simple representation of the financial model used.

47. Each company needs to collect sufficient revenue to finance its operating expenditure and the capital investment programme. It also needs to be able to finance previous capital investment through the return the company earns on its regulatory capital value (RCV). The RCV is the value of the regulated business. In addition, the water industry pays tax. Ofwat also allows for any incentive allowance for out-performance in the previous five-year period. The sum of these costs is called the revenue requirement.

48. Changes to the number and mix of measured/unmeasured customers affect the revenue received. Rising bills may prompt more customers to seek a meter to save money; unmeasured bills may rise as a result to ensure that the company has sufficient revenue to meet its obligations.

49. The percentage change between the revenue requirement and the revenue expected from customers is the price limit. Finally, Ofwat checks that the outcome of this calculation provides price limits that will enable the company to be financeable.

50. The main components of customers' bills are:

- operating costs;
- capital charges, i.e. the costs of capital expenditure on improving and maintaining the asset stock (spread over the life of the assets);
- taxation;
- net interest; and
- profit after tax, i.e. the amount attributable to shareholders.

Administration costs

51. Ofwat's modelling assumed minimal to nil additional administration (including mapping) costs for an automatic overnight transfer. By 'additional', is meant above the administration costs already incurred by WaSCs.

52. However, Water UK has advised that WaSCs foresee increased administration costs on transfer, including input to appeals procedures in cases where owners who do not want their sewers or laterals transferred, scheduling and dispatch functions, increased call volumes when transfer is communicated, and additional monitoring and reporting commitments on service levels and investment to Ofwat, covering newly adopted sewers separately from existing public sewers.

⁴⁶ This assumption has been made to present a comparison between Ofwat and Water UK's estimated bill impacts.

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53. There would certainly be additional administration costs incurred by WaSCs in overseeing options under an 'on application' approach, but these will be covered in the partial RIA to accompany the consultation on implementation options should a decision to transfer existing private sewers be taken.

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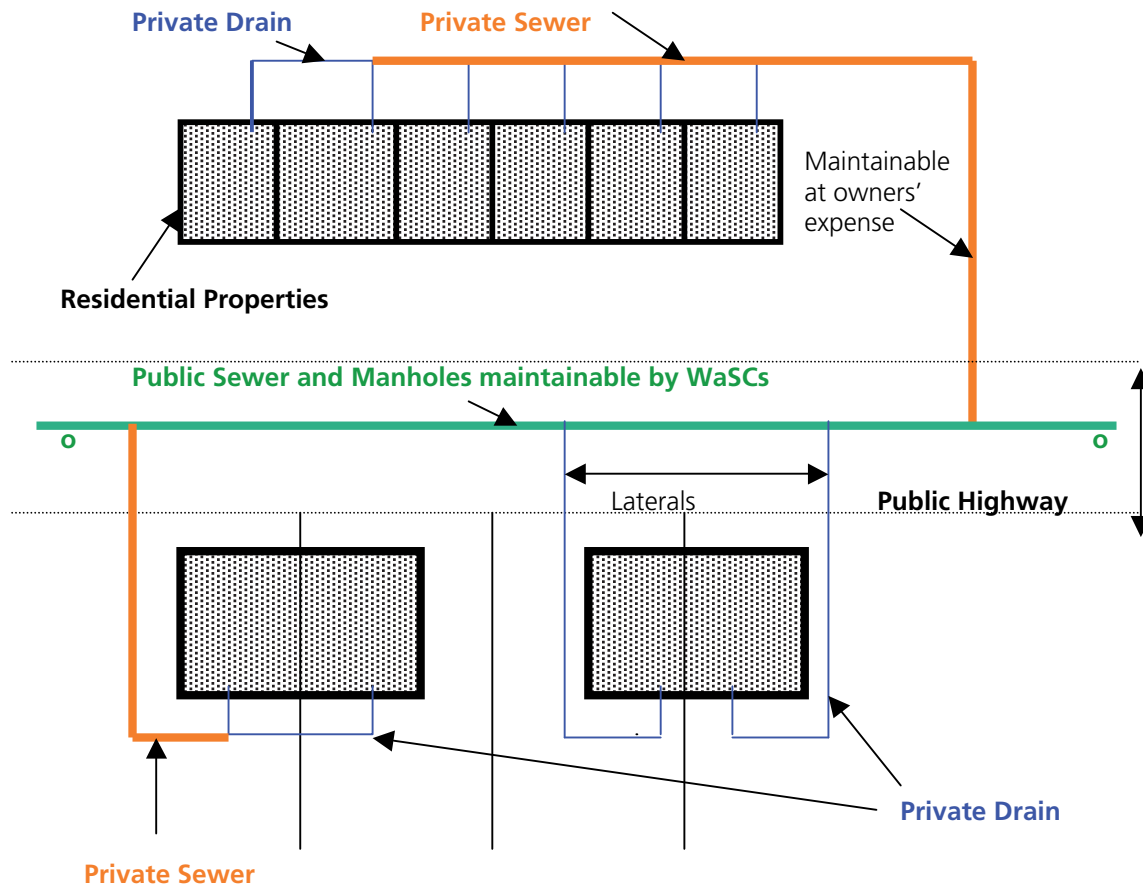
Annex A: Alternative implementation approaches to an automatic overnight transfer, recommended for further public consultation

Option	Description
1 Automatic phased	All existing private gravity sewers & gravity laterals would begin to be transferred into the ownership of WaSCs from a set date, but transfer would be completed over a period of time. Transfer of existing private pumping stations & sewers draining to them would be phased, starting from a later set date.
2 On application	Existing private gravity sewers & gravity laterals would be transferred into the ownership of WaSCs on application by their owners. Transfer would be effected unconditionally – i.e. assets would be transferred irrespective of their location, condition or any other consideration. Existing private pumping stations & sewers draining to them would be transferred into the ownership of WaSCs on application by their owners, but this would first require the WaSC to set a timescale for any remedial work required before formal adoption.
3 On application, conditional	As for Option 2, but owners would be required either to identify the assets to be transferred & the properties served by them &/or to bring the assets up to a 'serviceable standard' at their own cost. Existing private pumping stations and sewers draining to them would be transferred on application by their owners, but this would first require the WaSC to set a timescale for any remedial work required before formal adoption.

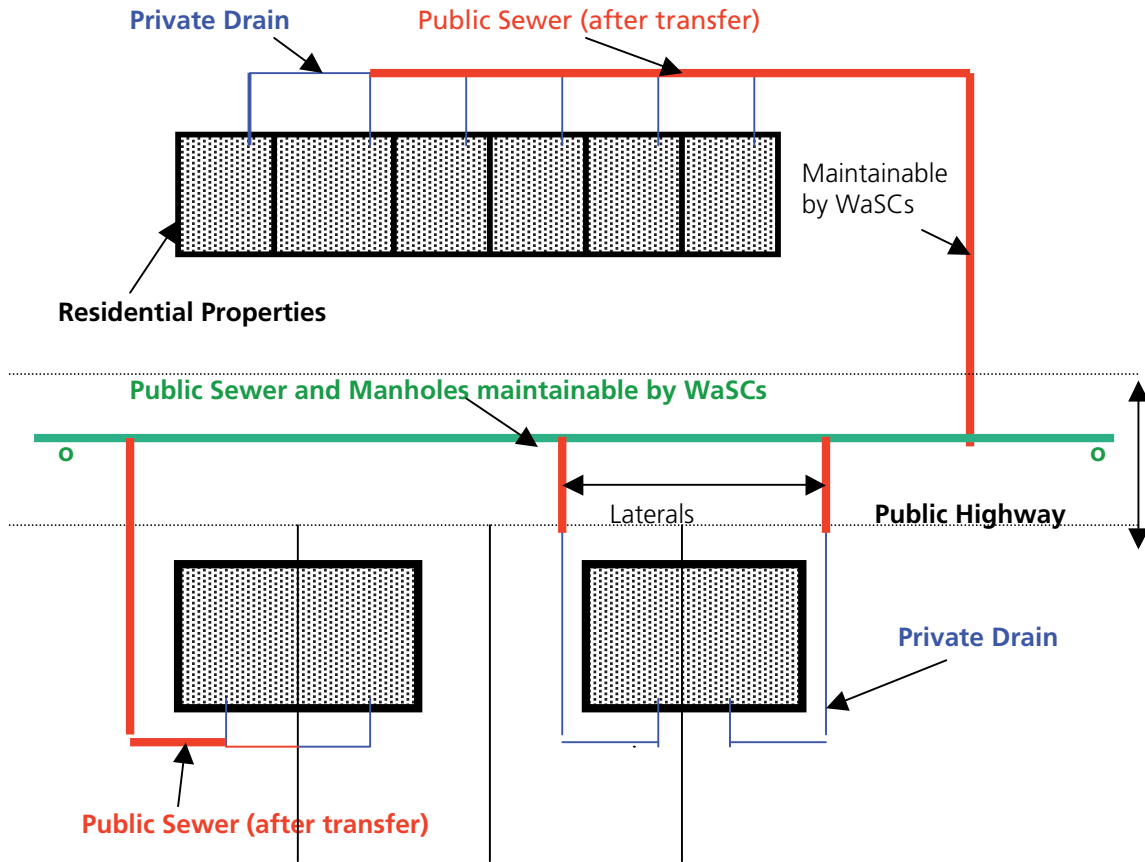
Note that the names of these options have changed for clarity of meaning since the stakeholder seminar in January 2005, when the automatic overnight option was labelled 'Compulsory overnight transfer' and the alternative implementation options were labelled as follows: Option 1: Compulsory phased; Option 2: Unconditional voluntary ; Option 3: Conditional voluntary.

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Annex B: Diagram of present typical arrangements for private sewers and drains draining to public sewers

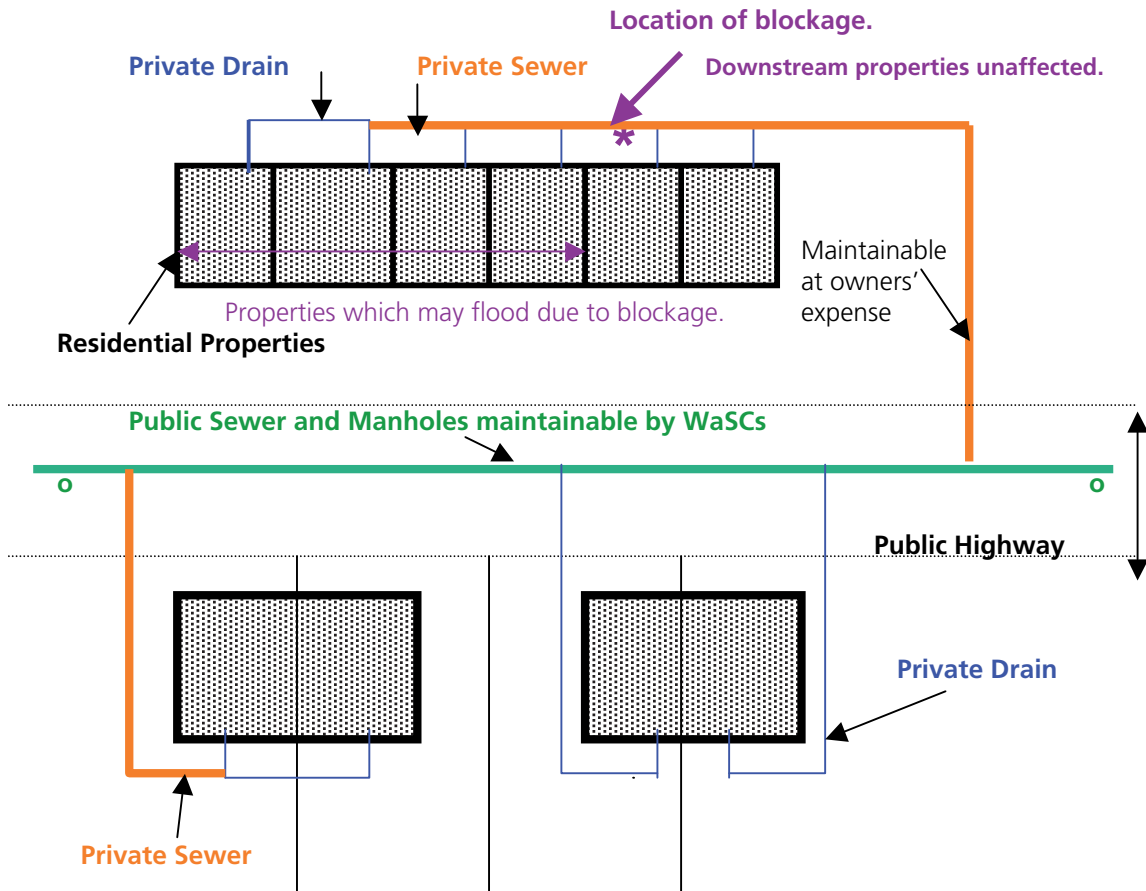


Annex C: Diagram highlighting (in red) which assets are recommended for transfer



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Annex D: Diagram highlighting scenario of blockage on current shared network that may not affect all connected properties



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Annex E: Problem types for private sewers and drains recorded by local authorities

The questionnaire sent to local authorities contained various sections on problems and issues that each authority might have experienced in dealing with private sewer and lateral drain issues.

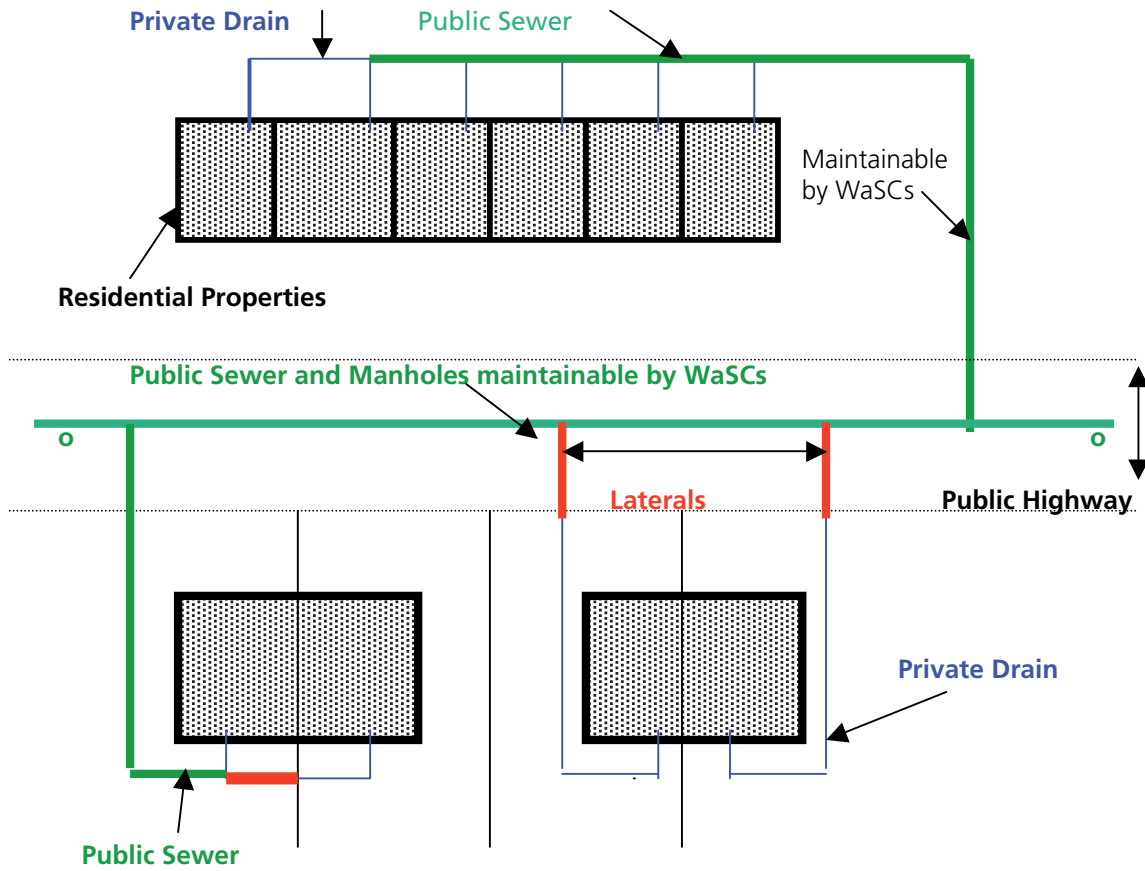
The data was weighted by the number of properties in each local authority area, with the validity of extreme values assessed on a case by case basis. The table below presents the results extrapolated to national level across England and Wales.

Problem Type	Number of incidents per annum
Problems with ownership	45,000
Flooding due to surcharging from public sewers	42,000
Flooding due to structurally defective private sewers	46,000
Flooding due to hydraulic inadequacy of private sewers	20,000
Premature failure of pitch fibre pipes	50,000
Problems with lateral drains	58,000

Source: Review of Existing Private Sewers and Drains in England and Wales, Consultation Paper, Atkins, July 2003, p.22

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Annex F: Diagram highlighting (in red) laterals recommended for transfer



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Annex G: Summary of stakeholder seminar, January 2005

1. As part of its 2004 Response Paper, the Government agreed to hold a seminar for stakeholders to discuss the key issues surrounding the transfer of private sewers and laterals to WaSCs.
2. The seminar⁴⁷ was held in January 2005 and was attended by about 90 representatives drawn from the water industry, residents' associations, the drain repair industry, insurance industry, local authorities, the construction and engineering sector, consumer representatives, other government departments and academic experts.
3. The objective of the seminar was to agree sustainable options for the scope and form of any potential transfer of private sewers to WaSCs. The information gathered during the day's discussions contributed significantly towards the decision to transfer ownership and to the alternatives to automatic overnight transfer being put forward for consultation.

Presentations

4. Presentations were given by Atkins⁴⁸ Water UK, Ofwat and Consumer Council for Water (CCWater, then WaterVoice). Atkins summarised the research already undertaken on behalf of Defra. This gave an indication of the overall extent of private sewers and the scale of problems and costs associated with them.
5. Water UK then presented the industry's preferred two-stage approach to automatic overnight transfer, beginning with the transfer of all private sewers and laterals draining directly to public sewers, progressing to the transfer of private pumping stations at a later stage, but excluding the transfer of private sewage treatment works.
6. CCWater stated that the present arrangements for ownership, responsibility and maintenance of private sewers and drains were unsatisfactory and required action, but also raised concerns over customer awareness of these issues and the costs of transfer that might fall on customers already facing increases in their water and sewerage bills. CCWater suggested that customer research should be undertaken to establish the extent to which sewerage customers in general might be willing to pay higher bills in return for a transfer of ownership. CCWater recommended that customers should be kept informed and consulted about the pace and scope of change. It also felt that any change should be limited to households in the first instance.
7. Ofwat offered an economic perspective expressing its concern about "A potentially expensive new obligation for customers". Ofwat suggested how bill impacts might be lessened through targeted transfer schemes, restricting the scope of assets transferred, and extending the timescale for mapping of sewers and for transfer.

⁴⁷ The seminar was entitled Review of Existing Private Sewers in England & Wales: What Next?

⁴⁸ Atkins was the engineering consultancy appointed by Defra in 2000 to carry out the Review of Existing Private Sewers and Drains in England and Wales.

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Workshops

Impact on small businesses

8. This workshop was part of the Small Firms Impact Test (SFIT), which was presented in the Regulatory Impact Assessment (RIA) that accompanied the Government's decision to transfer.⁴⁹ The majority of attendees at the workshop thought that transfer of ownership to WaSCs would be perceived as more of a threat than an opportunity, particularly by very small businesses working in the drain repair sector. Some delegates felt that a transfer could represent an opportunity for slightly larger or alert firms to win contracts to undertake work for WaSCs. Defra agreed to try to contact the smallest of businesses such as sole traders to test these views.⁵⁰

Technical issues

9. This workshop discussed how practical difficulties could be addressed, including whether all or part of the lateral drain should be adopted and how blockages could be dealt with in the absence of a maintenance chamber. There was a general consensus that lateral drains should be transferred and that the curtilage (property boundary) should be the demarcation point for transfer.

10. It was also generally agreed that inspection chambers should not be constructed retrospectively unless there was a recurring maintenance issue, in which case the WaSC should undertake the work and fund it. The group agreed that all new properties should have inspection chambers constructed as near as possible to the curtilage and that the current *Protocol for the Construction of New Sewers and Drains* should be made mandatory as soon as possible in order to prevent an increase in private sewers in the future.

Asset types to be included in any transfer

11. This workshop considered what asset types should be included in any transfer, e.g. surface water drains, private treatment works and pumping stations. It concluded that all private foul and surface water sewers and lateral drains that connect to public sewers should be transferred. It concluded that pumping stations connected to such sewers should be transferred (provided that issues such as health and safety, land ownership and access, and power supplies were adequately addressed).

12. Watercourses, surface water sewers that discharge directly into watercourses, and entirely private systems including private treatment works (i.e. **not** connected to a public sewer) were thought unsuitable for transfer.

Types of premises to be included in any transfer

13. Delegates considered whether any types of properties should be excluded from adoption. Although the Government's main concern at the beginning of the review was to help householders, there was virtually unanimous group support for the idea that shared private sewers also serving non-household developments should be transferred to WaSCs.

14. It was recognised however that operators of industrial premises may not want to transfer ownership of on-site pipe work under their single ownership. As such there was strong support for the right of an owner of a non-household sewer to appeal transfer.

⁴⁹ The RIA can be found on Defra's website at: <http://www.defra.gov.uk/environment/water/industry/sewers/existing/index.htm>

⁵⁰ This was done by telephone survey as part of the Small Firms Impact Test (SFIT). See RIA accompanying the decision to transfer on Defra's website at: <http://www.defra.gov.uk/environment/water/industry/sewers/existing/index.htm>

Discussion of the form transfer might take

15. Round table discussions considered scenarios for a transfer of ownership including overnight versus phased, automatic versus 'on application', and possible priorities and criteria for transfer.

16. Delegates thought that an overnight automatic transfer of **all** assets was unworkable. There was general agreement that the preferred option would be for automatic transfer of certain assets in two stages, as advocated in Water UK's morning presentation⁵¹. Transfer was defined as including:

- all gravity sewers and laterals from a set date
- phased transfer of pumping stations, once assessed, over a number of years (including sewers and laterals upstream of a pumping station)

17. Delegates felt that surface water sewers and surface water pumping stations were adequately covered under '*Making space for water*' and could assume a lower priority.

18. Initially there was wide scepticism about how an on application system could work. It was suggested that WaSCs would have a number of practical difficulties implementing such a scheme, as it would be demand-led and the problems associated with joint ownership would remain. Ofwat stressed that an on application approach had the potential to mitigate costs to customers and should not be discounted.

19. Some general points were noted in closing the seminar. CCWater suggested that finding a system that satisfied all customers was unlikely, but stressed one should be agreed that served the best interests of the majority.

20. The two-stage approach to transfer was advocated as a realistic approach by WaSC representatives and received widespread support with few dissenters during the seminar.

21. Further details of the seminar and the presentations made on the day are available at: <http://www.defra.gov.uk/environment/water/industry/sewers/existing>

⁵¹ Ofwat and WaterVoice (now CCW) raised concerns about the potential cost implications of this option.

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Annex H: Conclusions from customer survey report taken from 'Market Research on Proposed Transfer of Private Sewers, Final Report', MVA Ltd in association with WRc, July 2005.

Note: references to 'respondents' reflect the wording of the final report. 'Participants' is preferred and used in the main body of the RIA.

Key Findings

Objective 1: To gain an indication of the levels of awareness among customers of the issues surrounding private sewers

- Respondents were not aware of their responsibilities regarding ownership of drains and sewers serving their property.
- This is partly because customers were unclear about what is meant by a 'drain' and a 'sewer'. But it is also because there is no information available to property owners that clearly identifies which aspects of the drainage/sewerage system is under their ownership, nor the implications and responsibilities that come with ownership.
- This ignorance means that there is considerable risk that customers may be uncertain about proposals for such a transfer – especially if it is to be a compulsory transfer. However, once customers became aware of the issues/responsibilities associated with private sewer ownership, they strongly supported the proposal to transfer ownership – and their preference was for ownership to be passed to the Water and Sewerage Companies. Respondents preferred local authorities to take on a regulatory role: to be reactive when environmental or health risks occurred; to be proactive in providing information on ownership; and to handle planning issues and consents.

Objective 2: To gather information, where possible, on customers' experiences of private sewer problems

- A considerable minority of customers had experienced problems with their drains, usually a blockage, although a greater number were aware of others (friends and neighbours, for example) who had experienced problems. Shared cost situations were fairly uncommon but, when such occasions arose, other neighbours had refused to contribute in some cases.
- The main problems regarding existing private ownership highlighted by the majority of respondents were: unexpected cost; identifying responsibility; the co-ordination of repairs and payment with neighbours; the unfairness that customers are owners of private sewers without being told when purchasing their property; the potentially high costs of lateral repairs and the fact that lateral drains were outside the property and consequently outside the control of the owner. There was, therefore, strong support for inclusion of lateral drains along with private sewers in any transfer.

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Objective 3: To explore how customers would react to any transfer of private sewers to public ownership, covering issues such as form, scope and funding of transfer

- Views on the current ownership situation can be summarised as it being unfair; inconsistent (since some customers had the risks associated with private ownership whilst others in similar houses/streets did not); complicated and untenable. Most respondents could see few advantages in maintaining the status quo. There is a widespread belief that responsibility for drain and sewers only extends to the property boundary, as is the current situation regarding responsibility for water supply pipes. The majority of respondents believed that responsibility for drains and sewers should mirror those for water supply.
- Respondents shared the same views on dissatisfaction with the existing system and support for a proposed transfer to the Water and Sewerage Companies, regardless of where they lived, their demographic profile or whether or not they perceived themselves to be an owner of a private sewer.
- Regarding the scope and form of a proposed transfer there was majority support for this to be compulsory and overnight rather than voluntary or in stages. The latter two options being seen as further complicating the problem. There were respondents however – namely in the Wessex 'Rural', United Utilities 'Owners' and Wales 'Urban' groups – who preferred the staged approach.
- The majority of respondents believed that business customers should be included in any proposed transfer of ownership as any differentiation would be difficult to manage especially in areas of mixed property use; some respondents expressed the view that larger businesses might need to be regulated to guard against a proclivity to cause blockages.
- The majority of respondents believed that all customers should pay for transfer of ownership rather than only those who own private sewers or lateral drains as this would be fairer. Although some respondents in the United Utilities, Northumbrian and Thames regions felt that only customers with private sewers and lateral drains should pay. Some respondents expressed concerns over the cost involved in identifying owners of private sewers and lateral drains.
- When presented with the indicative costs of a possible transfer of private sewers in their region, as estimated by Ofwat⁵², all respondents felt that the estimated increase was acceptable and most expected the costs would have been higher. The additional cost of including lateral drains in the proposed transfer (given as approximately 10 per cent of the total increase) was seen as minimal. However, many respondents raised strong concerns about the possibility of further increases in the future.
- The majority of respondents did *not* think it would be fair to expect owners of private sewers and lateral drains to bring these 'up to standard' before any transfer believing this to be expensive and time consuming.

⁵² The figures used were based on modelling by Ofwat carried out in April 2005. They are indicative for each Water and Sewerage Company area in England and Wales and represent the calculated annual increase in bills to cover the costs associated with the transfer of private sewers and lateral drains to the Water and Sewerage Companies. They do not cover potential cost increases associated with other improvements or upgrades to the water or sewerage infrastructure and they do not take into account inflation.

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Objective 4: To identify what customers believe the Government's main objective should be in the implementation of such a policy, should transfer go ahead

- Underpinning respondents' views on the Government's objectives was concern about not being aware of their current responsibilities. A majority stated that the Government's main objective in the implementation of such a policy, should transfer go ahead, should be to provide property owners with information on the current situation and plans for the transfer of ownership.
- Some respondents also highlighted the need for the Government to oversee the proposed transfer to ensure that it is achieved consistently across England and Wales.

Objective 5: To identify and explore what issues customers consider would need to be addressed if transfer of ownership should go ahead

- A majority of respondents stated that clear guidelines are needed, following any transfer, to clarify rights of access to property owners' land, and to the types of work that can be carried out with limited approval/notice period. In summary (from the customers' perspective), the issues of potential concern are:
 - whether repair work would be carried out in an acceptable timescale and to an acceptable level of quality;
 - after completing work on someone's property, Water and Sewerage Companies would need to leave the plot as they found it; and
 - clarification would be needed on the degree to which Water and Sewerage Companies would be able to unilaterally decide on: carrying out work to upgrade existing sewers on customers' property, and extending current infrastructure to link to new developments.
- The majority of respondents suggested that after transfer, property owners will want to receive written confirmation of those pipes for which ownership has been transferred, and those that remain their responsibility. Communicating correctly the situation with ownership of drains is crucial to ensuring that the public are not, subsequently, disappointed when, after transfer they suffer a blocked drain.
- Some respondents identified that following any proposed transfer of ownership, the question of whether the public will become more relaxed about what they flush down the toilet might become relevant. This was raised as a concern but, of course, property owners will remain responsible for their own drains, so this is an unlikely consequence.

Implications of Key Findings

The strong consensus of opinion expressed by customers supports findings of the previous public consultation (in which householders were under represented) and the views expressed at the subsequent stakeholder seminar that:

- transfer of private sewers and lateral drains should take place and that the transfer should be to Water and Sewerage Companies;

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- the transfer should be compulsory;
- it should be overnight, not phased;
- *all* customers should share the additional cost burden; and
- business premises should be included in the transfer.

There is a clear view among respondents that more information should be provided to householders on current drain and sewer ownership, and on any transfer, and that this should be primarily a Government responsibility. Action is required by the Government as, currently, many customers are assuming ownership on the basis of receiving invitations to take out insurance cover for drainage in addition to normal property insurance.

Without further information enabling individual property owners to differentiate between ownership of a drain and a sewer; and raising the public's awareness of the responsibilities of private ownership, the public are simply not going to understand the impact of a change in ownership of private sewers and may not support it.

Equally important is that, post-transfer, the public understands what responsibilities it retains for drains.

Should the transfer not take place there will still be a clear need for information to be provided on the current situation.

There was consensus that the house-buying process should make drainage ownership and responsibility crystal clear to purchasers.

Clarification is needed regarding insurance cover for drainage that customers take out in addition to their normal property insurance. This is offered by some Water and Sewerage Companies and other service providers. What customers may not be aware of is whether they are duplicating cover and whether their policy(ies) cover lateral drains or private sewers outside their property. Beyond any transfer of ownership, property owners will still be responsible for drains within their properties and buildings, and will require clear guidance on their choices for obtaining insurance cover.

Respondents were concerned about the presence of sewers (public or private) in their properties, particularly with regard to the rights of others over access to and repair of such sewers. These sewers could be designed out of the layout of new build properties to eliminate access issues.

Recommendations for Further Investigation

This research has shown that there are ways of explaining private sewer and lateral drain ownership to the public and, through the use of illustrative layouts of drain/sewer pipes and properties, getting them to think through their likely ownership and responsibilities. There is scope, therefore, to develop a quantitative research framework that would enable an estimate of numbers of customers owning private sewers and lateral drains around the country. Some respondents thought there was a need for further customer consultation to assess the degree of public support or opposition. Further research would also enable conclusions gathered in this qualitative research to be tested and quantified.

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Defra should consider examining the provision of insurance cover (costs and scope of cover, particularly regarding lateral drains and private sewers outside the property) through household policies and specific drainage policies provided through third parties. An understanding of this will inform the debate about the cost of transfer as the annual premiums for specific drainage cover already exceed the likely annual increase in sewerage bills to cover transfer. After a transfer, property owners will still have responsibility for their drains within their curtilage and there will continue to be a market for insurance cover. This will need to be included in any information dissemination exercise planned by Defra.

Defra also need advice on what information should be communicated to customers, and the most suitable communication channels. Further research on these matters, perhaps quantitatively, would assist Defra in this important exercise.

The sixth Objective for this project is *"to achieve a sound qualitative platform on which to build, at a later stage (timing to be decided), quantitative assessment of customers' views in a possible transfer of private sewers to public ownership."* It needs to be stressed that this project was undertaken as a qualitative exercise, not a quantitative study. Limited semi-quantitative data was collected that has formed a starting point for further work. Stimulus material developed with expert advice during this qualitative study could also be of benefit. If Defra requires quantitative data to support policy, or quantify the scale of existing private ownership, further specific research would be required.

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Annex I: Options presented in 2003 Consultation to respondents who expressed support for transfer

Respondents in favour of a change in ownership were asked a supplementary question regarding the extent of sewers which should be adopted. They were given five options with regard to the extent of any possible change, which they were requested to rate in order of their preference. To assess the respondents' preferences, a score was attributed against each rating i.e. first choice scored five points, second scored four points and so on with their fifth choice scoring one point. Where a respondent did not provide a preference a score of zero was attributed.

Table A below presents the scores calculated for each of the given options:

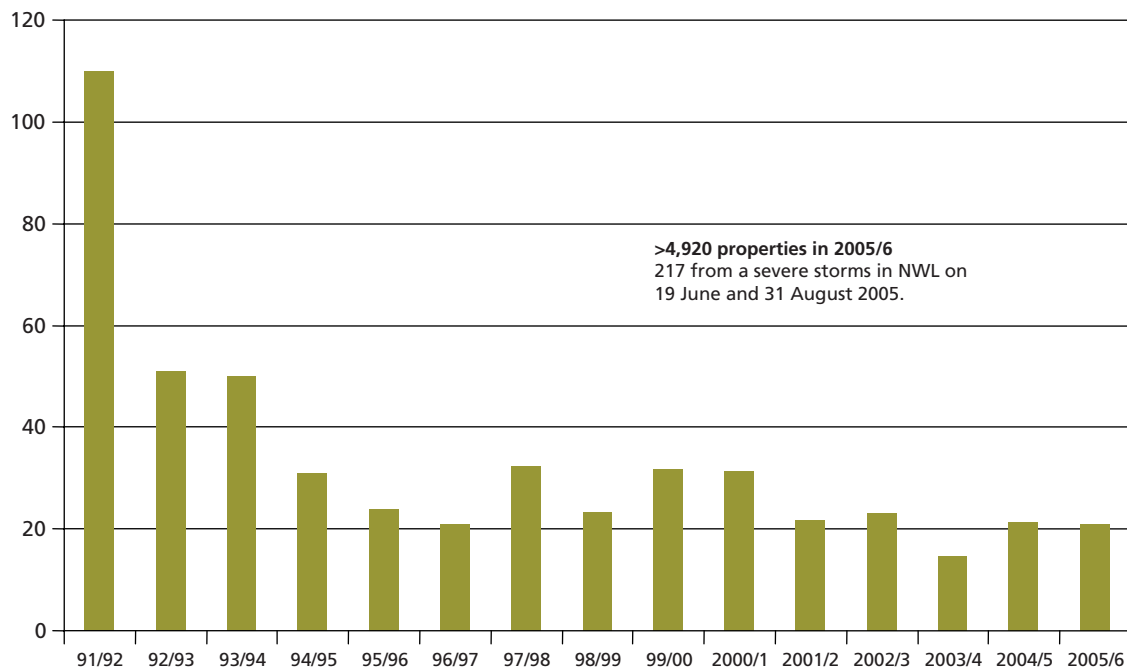
	All		LAs		SUs	
	Score	Rank	Score	Rank	Score	Rank
Option i – Laterals only	308	4	223	4	24	3
Option ii – Private sewers which discharge into public sewers only	426	2	298	2	31	2
Option iii – Private sewers which discharge into public sewers, plus laterals	535	1	368	1	39	1
Option iv – All private sewers, including private treatment/disposal facilities	294	5	221	5	8	5
Option v – All private sewers, including private treatment/disposal facilities, plus laterals	390	3	292	3	14	4

Source: Review of Existing Private Sewers & Drains in England & Wales, Penultimate Report (Part 1), Analysis of Consultation Responses, Atkins, p. 16, January 2004

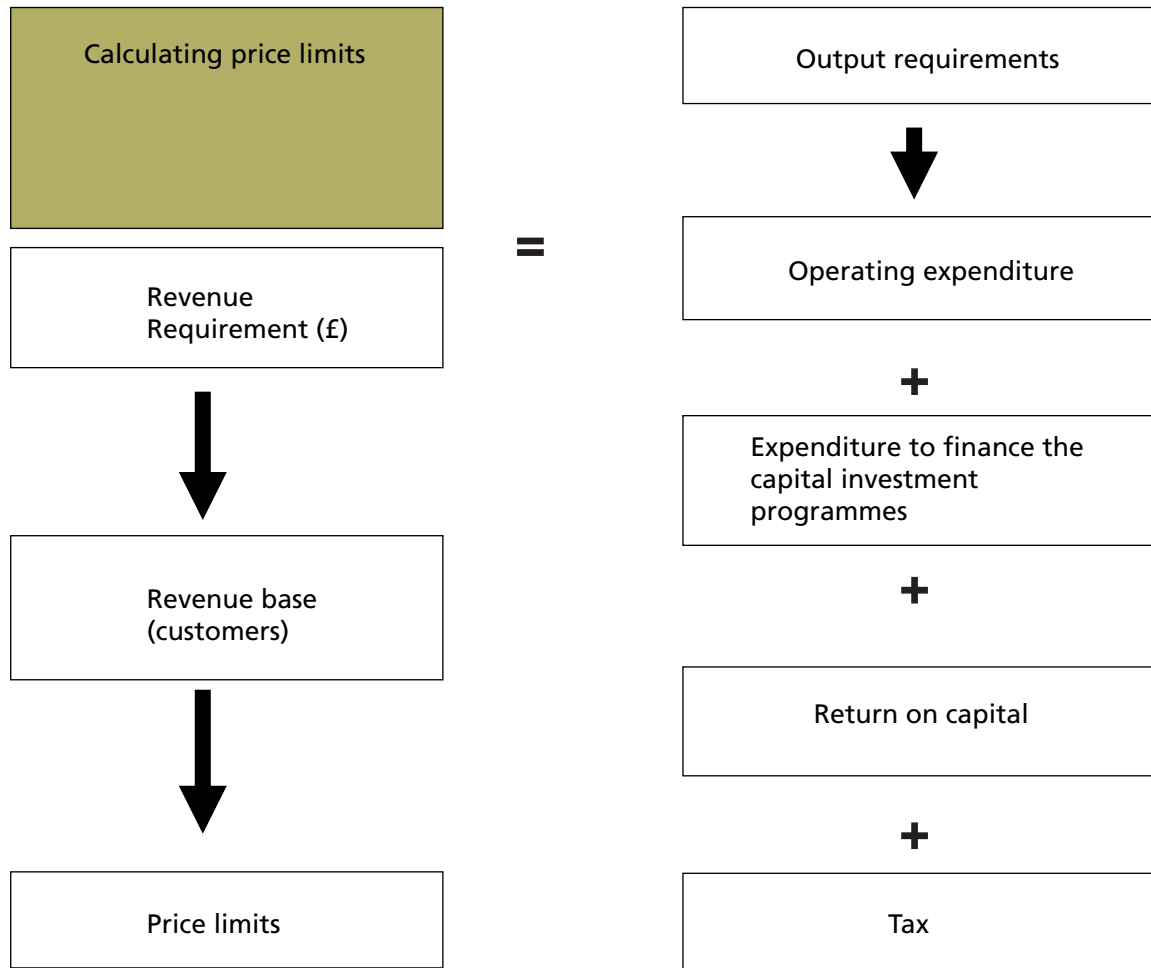
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Annex J: WaSCs record on sewer flooding on public network, year-on-year 1991 – 2006

ALL UK PUBLIC SEWER FLOODING
 1991/92 to 2005/6 (Incidents per 100,000 connected properties)



Annex K: Ofwat's broad approach to setting price limits



Source: Future water and sewerage charges 2005 – 2010, Final Determinations, Ofwat, p. 62

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ANNEX L: Glossary

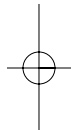
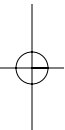
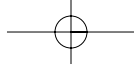
Definitions

1. A 'drain' and a 'sewer' are defined in Section 219(1) of the Water Industry Act 1991.
2. In addition to this, there is a long standing judgement refining the definition of a sewer. This comes from *Pakenham v Ticehurst RDC* (1903) 67 JP 448 and states:

"Must be in some form, a line of flow by which sewage or water of some kind, such as would be conveyed through a sewer, should be taken from a point to a point and then discharged. It must have a terminus a quo and a terminus ad quem".
3. A 'public sewer' is defined by Section 219(1) of the Water Industry Act 1991 to include any sewer vested in a sewerage undertaker by virtue of a scheme under Schedule 2 of the Water Act 1989 or Schedule 2 of the 1991 Act or Section 179 of the 1991 Act. Some points to note:
 - Subject to a number of exceptions, Section 13 of the Public Health Act 1875 vested all sewers which were in existence on the 15 August 1876 or which were constructed after that date but before the 1 October 1937 in the relevant local authority.
 - The Local Government Act 1972 transferred to the newly created water authorities those sewers, which had previously vested in local authorities under the Public Health Act 1936. The sewers accordingly transferred to the relevant water authority by this legislation.
 - Schedule 2 to the Water Act 1989 required each water authority to make a scheme transferring its utility roles of water supply and sewerage services to its successor company.
4. A 'private sewer' is a sewer which is *not* a public sewer and is generally, collectively owned and maintained by the owners of the premises it serves.
5. A 'lateral' is the part of an individual house drain which is situated outside the curtilage of the property (including highways) in order to connect with a public sewer.
6. A 'cesspool' or 'cesspit' is a receptacle for receiving and containing sewage (i.e. having no outlet).
7. A 'septic tank' is a receptacle for receiving sewage which offers a basic level of treatment before discharging partially treated effluent into the ground.
8. A 'Section 24' sewer refers to a public sewer which by its properties is a public sewer as defined under what was Section 24 of the Public Health Act 1936. Typically these are small diameter sewers which are situated in back gardens, private roads and access paths. Note: Section 24 is now repealed.

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9. An 'enabling power' is a statute empowering a body or persons to take certain action especially to make regulations, rules and orders. If it is decided to transfer private sewers to water and sewerage companies (WaSCs), the Water Act 2003 includes an enabling power to allow this to be done.
10. A watercourse is a naturally occurring flow of water in a defined channel.
11. A section 104 sewer is a private sewer constructed by a builder, developer or local authority at its expense under a formal section 104 of the Water Industry Act (1991) agreement with the water and sewerage company or a District Council acting on its behalf. Such sewers normally become public sewers at the end of a maintenance period provided that they were properly constructed and have been properly maintained.
12. A rising main is a drain or sewer through which foul sewage and/or surface water runoff is pumped (from a pumping installation) under pressure.
13. A node is a point in a sewerage/drainage pipe where there is a physical change in the pipeline. This may be: pipe size, shape, depth, gradient, material etc, and will usually have access for maintenance.



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